Appendix A—Acronyms

AASHTO	American Association of State Highway and Transportation Officials
ABA	Architectural Barriers Act
ABAAS	Architectural Barriers Act Accessibility Standard
ADA	Americans with Disabilities Act
ADA/ABAAG	Americans with Disabilities Act/Architectural Barriers Act Accessibility Guidelines
AHC	American Horse Council
ASTM	American Society for Testing and Materials
ATV	All-terrain vehicle
BMP	Best management practices
BOR	Bureau of Reclamation
CCA	Chromated copper arsenate
CCS	Cellular confinement systems (geotextiles)
DOD	Department of Defense
DOJ	Department of Justice
DOT	Department of Transportation
ESA	Endangered Species Act
FEMA	Federal Emergency Management Agency
FHWA	Federal Highway Administration
FICMNEW	Federal Interagency Committee for the Management of Noxious and Exotic Weeds
FSH	Forest Service Handbook
FSM	Forest Service Manual
FSORAG	Forest Service Outdoor Recreation Accessibility Guidelines
FSTAG	Forest Service Trail Accessibility Guidelines
GIS	Geographic information system
GPS	Global positioning system
GSA	General Services Administration
HUD	Department of Housing and Urban Development
IBC	International Building Code
ICC	International Code Council
IMBA	International Mountain Bicycling Association
ISA	International Symbol of Accessibility
MTDC	Missoula Technology and Development Center
MUTCD	Manual on Uniform Traffic Control Devices
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
NTTP	National Trails Training Partnership
O & M	Operations and maintenance
OHV	Off-highway vehicle
ORAR	Outdoor recreation access route
PBIC	Pedestrian and Bicycle Information Center
ROS	Recreation Opportunity Spectrum
RWT	Rails-with-trails
SCA	Student Conservation Association
SMS	Scenery Management System
SDTDC	San Dimas Technology and Development Center
TCD	Traffic control device
UFAS	Uniform Federal Accessibility Standards
USCS	Unified Soil Classification System
USDA	United States Department of Agriculture
USDI	United States Department of the Interior
USPS	United States Postal Service
VRM	Visual Resource Management

Appendix B—Trail Libraries, Trail Organizations, and Funding Resources

Trail Libraries

- **Federal Highway Administration**—*Recreational Trails Program Publications: http://www.fhwa.dot.gov/environment/rectrails/publications.htm*
- **Federal Highway Administration**—*Recreational Trails Program Related Links: http://www.fhwa.dot.gov/environment/rectrails/links.htm*
- **Federal Highway Administration**—*USDA Forest Service Publications List: http://www.fhwa.dot.gov/environment/fspubs*
- **National Transportation Library**: *http://ntl.bts.gov*
- **National Trails Training Partnership**—*Resources Library: http://www.americantrails.org/resources/index.html*
- **Professional Trail Builders Association**—*Resource Library: http://www.trailbuilders.org/resources*
- **USDA Forest Service**—*Directives: http://www.fs.fed.us/im/directives*
- **USDA Forest Service**—*Technology and Development Publications: http://www.fs.fed.us/t-d/pubs* (Username: t-d, Password: t-d)
- **University of Minnesota Trail Library**—*Trail Planning, Construction, and Maintenance: http://forestry.lib.umn.edu/bib/trls.phtml*

Trail Organizations

- **American Hiking Society** (AHS) provides more than hiking information. The AHS Web site has links to information regarding trail-based policy initiatives, funding resources, trail news, and volunteer opportunities, as well as a trail finder service at *http://www.americanhiking.org.*
- **American Horse Council** (AHC) is a national trade association representing the horse industry before Congress. The AHC monitors Federal legislation and regulations that affect the horse industry. Its Recreation Committee provides recommendations to the AHC regarding Federal recreation issues and works with local horse councils. A listing of related sites—including State horse councils—is available under the *About Us* menu at *http://www.horsecouncil.org.*
- **American Trails** is a nonprofit organization that promotes the creation, conservation, and broad enjoyment of quality trails and greenways. American Trails promotes common ground and cooperation among all trail interests and offers hundreds of articles, studies, contacts, links, and other Web resources at *http://www.americantrails.org.*
- **Back Country Horsemen of America** (BCHA) is a service club with many local chapters that strives to protect the equestrian use of, and access to, wilderness and backcountry areas. Volunteer members assist government and private agencies with trail maintenance and management. The BCHA strives to educate, encourage, and solicit active participation in the wise and sustainable use of backcountry resources by equestrians and the general public. More information is available at *http://www.backcountryhorse.com.*
- **Equestrian Land Conservation Resource** (ELCR) is a nationwide organization dedicated to assisting equestrians with access and land issues. The ELCR raises awareness among equestrians about stewardship and land conservation. It also assists grassroots efforts in communities nationwide,

encourages collaboration with other conservation and user groups, and provides equestrians with specific how-to information at *http://www.elcr.org*.

- ✯ **International Mountain Bicycling Association** (IMBA) provides services that include planning, designing, building, and maintaining trails. Technical resources are available on the Resources page at *http://www.imba.com*.
- ✯ **Land Trust Alliance** (LTA) promotes voluntary land conservation and provides training, publications, a digital library, grants, liability insurance for land trusts, and other services. More information is available at *http://www.lta.org*.
- ✯ **National Center for Bicycling and Walking** (NCBW) provides useful resources regarding land use, transportation, and planning for pedestrians and bicyclists at *http://www.bikewalk.org*.
- ✯ **National Trails Training Partnership** (NTTP), managed and promoted by American Trails, is an alliance of Federal agencies, training providers, nationwide supporters, and providers of products and services. The NTTP focuses on training opportunities. A wide variety of informative trail resources and links are available at *http://www.nttp.net*.
- ✯ **Pedestrian and Bicycle Information Center** (PBIC) maintains an online planning resources list for shared-use trails. The PBIC is a clearinghouse for information about health and safety, engineering, advocacy, education, enforcement, access, and mobility. The resources are available at *http://www.pedbikeinfo.org*.
- ✯ **Professional Trailbuilders Association** (PTBA) is an organization for private trail specialists and professional trail contractors, designers, and consultants. The PTBA promotes quality trail design, construction, and maintenance. More information is available at *http://www.trailbuilders.org*.
- ✯ **Recreational Trails Program** (RTP) is an assistance program of the Department of Transportation Federal Highway Administration (FHWA). The RTP provides funding to develop and maintain recreation trails and trail-related facilities for both nonmotorized and motorized recreation trail uses. Access RTP's Web page at *http://www.fhwa.dot.gov/environment/rectrails*. Some useful features include:
  - » Trail references and links to Federal and State agencies, trail organizations, and trail information resources, available at *http://www.fhwa.dot.gov/environment/rectrails/links.htm*.
  - » Links to Recreational Trails Program State administrators, available at *http://www.fhwa.dot.gov/environment/rectrails/rtpstate.htm*.
- ✯ **Rails-to-Trails Conservancy** (RTC) is a nonprofit organization that works to create a nationwide network of trails from former rail lines. The RTC promotes conditions to make trail building possible; works to protect the Transportation Enhancements Program; defends the Federal railbanking statute in Congress; and provides information, technical assistance, and training at local levels. More information is available at *http://www.railtrails.org*. Some useful features include:
  - » **Trails and Greenway Clearinghouse** is a service of the Rails-to-Trails Conservancy. Technical assistance, information resources, and referrals to trail and greenway advocates and developers across the country can be found at *http://www.trailsandgreenways.org*.
  - » **Trail-Building Toolbox** is a trail development resource center developed by the Rails-to-Trails Conservancy for first-time citizen advocates to more experienced planners and trail managers. Access the Trail-Building Toolbox at *http://www.railstotrails.org/whatwedo/trailbuilding/index.html* or *http://www.railstotrails.org/whatwedo/trailbuilding/technicalassistance/toolbox/toolbox_index.html*.
- ✯ **Rivers, Trails, and Conservation Assistance Program** (RTCA, also known as the Rivers and Trails Program) is a community resource of the National Park Service. The RTCA provides collaborative technical assistance to community groups and government agencies developing trails, greenways, open space areas, and other projects. The program focuses on organization building, planning, and coordination for conservation and outdoor recreation, but does not offer grants. More information is available at *http://www.nps.gov/ncrc/programs/rtca*.

Funding and Partnership Resources

- ***Ninety-five Creative Funding Ideas for Trails and Greenways*** (Macdonald 2003) is available at *http://www.americantrails.org/resources/funding*.
- **Foundation Center** Web site provides advice on how to write and seek grants, along with an extensive list of funding sources at *http://www.fdncenter.org*.
- **National Association of Service and Conservation Corps** (NASCC) is a direct descendant of the Civilian Conservation Corps of the Depression era. Information regarding methods to involve youth or conservation corps in projects is available at *http://www.nascc.org*.
- **National Trails Training Partnership** (NTTP) has many resources for trail planners. The Funding and Resources Web page provides links for fundraising ideas, volunteer programs, grants, and grant-writing resources. More information is available at *http://www.americantrails.org/resources/funding*.
- **National Transportation Enhancement Clearinghouse** (NTEC) Web site is a collaboration between the Federal Highway Administration and the Rails-to-Trails Conservancy. Some useful NTEC Web pages include:
  - *Transportation Enhancements* Web page, which provides links to basic information for using Federal Transportation Enhancement funds, State-specific information, and Federal legislation at *http://www.enhancements.org*. This Web page is an introduction—it is not the Transportation Enhancements Web site.
  - *Rails-to-Trails Conservancy Trail and Greenway Funding Guide*, which has a searchable database for many Federal, State, and private funding sources at *http://www.enhancements.org/trailfunding.htm*.
- **Red Lodge Clearinghouse** provides a searchable database of private, foundation, Federal, and State funding sources for trail and greenway projects in 11 Western States at *http://www.redlodgeclearinghouse.org/resources/search.cfm*.
- **Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users** (SAFETEA–LU) authorizes the Federal surface transportation programs for highways, highway safety, and transit from 2005 to 2009. More information is available at *http://www.fhwa.dot.gov/safetealu*.
- ***Transportation Enhancements*** is a Web resource for States sponsored by the Federal Highway Administration, which provides official legislation and guidance documents regarding Transportation Enhancement Activities. This Web site is not the same as the Transportation Enhancements page on the NTEC Web site. Access FHWA's Transportation Enhancements Web site at *http://www.fhwa.dot.gov/environment/te*.
- **Trust for Public Land** (TPL) helps agencies and communities define conservation priorities, identify lands to be protected, plan networks, raise funds, negotiate land transactions, and share knowledge. The trust also has information regarding regional, State, and Federal programs at *http://www.tpl.org*.
- **University of Wisconsin** *Grants Information Collection* has a Web page devoted to *Proposal Writing: Internet Sources: http://grants.library.wisc.edu/organizations/proposalwebsites.html*.

Appendix C—Helpful Resources

The resources cited in the text are compiled alphabetically here, by topic. For information on funding resources, see *Appendix B—Trail Libraries, Trail Organizations, and Funding Resources.*

Accessibility

- ***Accessible Exterior Surfaces Technical Article*** (Axelson and others 1999): *http://www.access-board.gov/research/Exterior%20Surfaces/exteriorsarticle.htm* or *http://www.beneficialdesigns.com/surfaces/surface.html*
- ***Accessibility Guidebook for Outdoor Recreation and Trails*** (Zeller and others 2006): *http://www.fs.fed.us/recreation/programs/accessibility/htmlpubs/htm06232801* or *http://www.fs.fed.us/t-d/pubs/htmlpubs/htm06232801.* This Web site requires a username and password. (Username: t-d, Password: t-d)
- ***Accessible Gate Latch*** (Groenier 2006): *http://www.fs.fed.us/t-d/pubs/htmlpubs/htm06232331.* This Web site requires a username and password. (Username: t-d, Password: t-d)
- ***Accessible Gates for Trails and Roads*** (Groenier 2006): *http://www.fs.fed.us/t-d/pubs/htmlpubs/htm06232340.* This Web site requires a username and password. (Username: t-d, Password: t-d)
- ***ADA and ABA Accessibility Guidelines:*** *http://www.access-board.gov/ada-aba*
- **Adaptive Riding Institute**: *http://www.adaptiveridinginstitute.org*
- **AgrAbility Project**: *http://www.agrabilityproject.org/assistivetech*
- ***Americans with Disabilities Act Accessibility Guidelines (ADAAG): Checklist for Buildings and Facilities:*** *http://www.access-board.gov/adaag/checklist/a16.html*
- **National Center on Accessibility**: *http://ncaonline.org*
- ***National Trails Surface Study*** (National Center on Accessibility): *http://www.ncaonline.org/index.php?q=node/75*
- ***New Accessible Handpump for Campgrounds*** (Kuhn and Beckley 2005): *http://www.fs.fed.us/t-d/pubs/htmlpubs/htm05712311.* This Web site requires a username and password. (Username: t-d, Password: t-d)
- **North American Riding for the Handicapped Association, Inc.:** *http://www.narha.org*
- ***Soil Stabilizers On Universally Accessible Trails*** (Bergmann 2000): *http://www.fhwa.dot.gov/environment/fspubs/00231202* or *http://www.fs.fed.us/t-d/pubs/pdf/00231202.pdf.* This Web site requires a username and password. (Username: t-d, Password: t-d)
- ***Universal Trail Assessment Process*** (Beneficial Designs, Inc. 1994–2001): *http://www.beneficialdesigns.com/trails/utap.html*
- ***USDA Forest Service Recreation, Heritage and Wilderness Programs:*** *http://www.fs.fed.us/recreation/programs/accessibility*
- ***Wilderness Access Decision Tool*** (Lais and others [n.d.]): *http://www.wilderness.net/index.cfm?fuse=toolboxes&sec=accessibility*

Animal Confinement

- ***Preservative-Treated Wood and Alternative Products in the Forest Service*** (Groenier and Lebow 2006): *http://www.fs.fed.us/t-d/pubs/htmlpubs/htm06772809.* This site requires a username and password. (Username: t-d, Password: t-d).
- ***Techniques and Equipment for Wilderness Travel with Stock*** (Stoner and others 1993): *http://www.fs.fed.us/t-d/pubs/htmlpubs/htm93232839.* This Web site requires a username and password. (Username: t-d, Password: t-d)
- ***The Equine Arena Handbook: Developing a User-Friendly Facility*** (Malmgren 1999): Available at book outlets.
- ***Underfoot*** (United States Dressage Federation 2007): *https://www.usdf.org/cgi-bin/commerce.exe?preadd=action&key=UNDERFOOT*

C

Case Studies

- ***Blue Mountain Recreation Area:*** *http://www.fs.fed.us/r1/lolo/recreation-brochures/blue-mtn-rec-area.pdf*
- ***City of Scottsdale Trails System Master Plan*** (Todd & Associates, Inc. and others 2003): *http://www.scottsdaleaz.gov/trails/plan.asp*
- **Frazier Recreation Site:** *http://www.fs.fed.us/r3/tonto/recreation/rogs/camping/Tonto%20Basin/Frazier.pdf*
- **Horseshoe Park and Equestrian Centre:** *http://www.queencreek.org/Index.aspx?page=196*
- **Horse Creek Campground:** *http://www.fs.fed.us/r6/siuslaw/recreation/tripplanning/newpflor/camp/horsecreek.shtml*
- **Houston Mesa Horse Camp:** *http://www.fs.fed.us/r3/tonto/recreation/rogs/camping/Payson/HoustonMesaHorseCamp.pdf*
- **Stonegate Equestrian Park:** *http://www.scottsdaleaz.gov/parks/neighborhood/stonegate.asp*
- ***Town of Queen Creek Parks, Trails, and Open Space Master Plan*** (HDR and others 2005): *http://www.queencreek.org/Index.aspx?page=198*
- **Waterfall Glen Forest Preserve:** *http://www.dupageforest.com/preserve.aspx?id=4224*
- **WestWorld:** *http://www.scottsdaleaz.gov/westworld*
- ***West Valley Multi-modal Transportation Corridor Master Plan*** (Maricopa Association of Governments 2001): *http://www.mag.maricopa.gov/archive/wvtrails/publications/master%20plan.pdf*

Engineering Standards and Building Codes

- **ASTM International** (originally known as the American Society for Testing and Materials): *http://www.astm.org*
- **International Code Council** (ICC): *http://www.iccsafe.org/cs*

Fords, Bridges, and Overpasses

- ***A Guide to Fiber-Reinforced Polymer Trail Bridges*** (Groenier and others 2006): *http://www.fs.fed.us/t-d/pubs/htmlpubs/htm06232824*. This Web site requires a username and password. (Username: t-d, Password: t-d)
- ***Geosynthetics for Trails in Wet Areas*** (Monlux and Vachowski 2000): *http://www.fhwa.dot.gov/environment/fspubs/00232838* or *http://www.fs.fed.us/t-d/pubs/htmlpubs/htm00232838*. This Web site requires a username and password. (Username: t-d, Password: t-d)
- ***Guide for the Development of Bicycle Facilities*** (AASHTO 1999): *http://www.communitymobility.org/pdf/aashto.pdf*
- ***Guide Specifications for Design of Pedestrian Bridges, 1st Edition*** (AASHTO 1997): *https://bookstore.transportation.org/item_details.aspx?ID=37*
- ***Guidelines for Geometric Design of Very Low-Volume Local Roads (ADT ≤ 400)*** (AASHTO 2001b): *https://bookstore.transportation.org/item_details.aspx?ID=157*
- ***Standard Specifications for Highway Bridges*** (AASHTO 1996): *https://bookstore.transportation.org/item_details.aspx?ID=51*
- ***Trail Bridge Catalog*** (Eriksson 2000): *http://www.fs.fed.us/eng/bridges*
- **Transportation Structures Handbook FSH 7709.56b** (U.S. Department of Agriculture, Forest Service 2005): *http://www.fs.fed.us/cgi-bin/Directives/get_dirs/fsh?7709.56b*
- ***Wetland Trail Design and Construction*** (Steinholtz and Vachowski 2007): *http://www.fs.fed.us/t-d/pubs/htmlpubs/htm07232804*. This Web site requires a username and password. (Username: t-d, Password: t-d)

Laws, Liability, and Safety

- **Animal Legal & Historical Center:** *http://www.animallaw.info*
- **Clemson Extension Large Animal Emergency Rescue:** *http://www.clemson.edu/ep/LART*

- ***ELCR Library of Resources*** (Equestrian Land Conservation Resource 2000–2007): *http://elcr.org/index_resources.php*
- **Equine Law and Horsemanship Safety:** *http://asci.uvm.edu/equine/law*
- ***Information by State*** (Equestrian Land Conservation Resource 2000–2007): *http://elcr.org/index_info.php*
- ***Liability and Lawsuits*** (International Mountain Bicycling Association 2006): *http://www.imba.com/resources/trail_issues*
- ***Recreational Use Statutes and the Private Landowner*** (Rivers, Trails, and Conservation Assistance Program 2007): *http://www.nps.gov/ncrc/programs/rtca/helpfultools/recusebrochures*
- ***Safe Trails Forum*** (National Trails Training Partnership 2007): *http://www.americantrails.org/resources/safety*
- ***Table of State Liability Laws*** (International Mountain Bicycling Association [n.d.]): *http://imba.com/resources/trail_issues/liability_chart.html*
- ***The Equine Activity Liability Act: How It Affects Associations & Sponsors*** (Farris 2005): *http://www.farrislawfirm.com/Default.aspx?PageID=31*
- **UC Davis Veterinary Emergency Response Team:** *http://www.vetmed.ucdavis.edu/clubs/VERT*

Low Impacts

- **International Dark-Sky Association:** *http://www.darksky.org*
- **Leave No Trace Center for Outdoor Ethics:** *http://www.lnt.org*
- ***Leave No Trace Stock Master*** course: *http://www.fs.fed.us/r1/lolo/resources-cultural/nwtc/descriptions.pdf*

Parking, Roads, and Intersections

- ***A Policy on Geometric Design of Highways and Streets*** (AASHTO 2001a): *https://bookstore.transportation.org/item_details.aspx?ID=110*
- **Cross Alert Systems:** *http://www.crossalert.com*
- ***Designating Parking Areas on Unpaved Surfaces*** (U.S. Department of Agriculture, Forest Service, San Dimas Technology and Development Center 2002): *http://www.fs.fed.us/eng/pubs/html/02231314/02231314*
- ***Equestrian Crossings*** (The Highways Agency 2003): *http://www.dft.gov.uk/pgr/roads/tpm/tal/signsandsignals/equestriancrossings.pdf*
- **Road Preconstruction Handbook FSH 7709.56** (U.S. Department of Agriculture, Forest Service 1987): *http://www.fs.fed.us/cgi-bin/Directives/get_dirs/fsh?7709.56*
- ***Roadside Design Guide*** (AASHTO 2002): *https://bookstore.transportation.org/item_details.aspx?ID=148*
- ***Supplemental Specifications and Recurring Special Provisions*** (Illinois Department of Transportation 2007): *http://www.dot.il.gov/desenv/07supp.pdf*

Planning and Design

- ***A Citizen's Guide to Transportation Decisionmaking*** (U.S. Department of Transportation, Federal Highway Administration 2001): *http://www.fhwa.dot.gov/planning/citizen*
- ***Designing Shared-Use Trails to Include Equestrians*** (O'Dell 2004): *http://www.americantrails.org/resources/trans/transhorse.html*
- ***Google Earth:*** *http://earth.google.com*
- ***Lightly on the Land: The SCA Trail Building and Maintenance Manual*** (Birkby 2006): Available at book outlets.
- ***Modifications of Highway Air Pollution Models for Complex Site Geometries*** in: *FHWA TechBrief* [n.d.]: *http://www.tfhrc.gov/structur/pubs/02036/02036.htm*
- **National Aerial Photography Program:** *http://edc.usgs.gov/products/aerial/napp.html*
- ***National Bicycling and Walking Study Ten Year Status Report*** (U.S. Department of Transportation, Federal Highway Administration 2004): *http://www.fhwa.dot.gov/environment/bikeped/study*
- ***Natural Surface Trails by Design: Physical and Human Essentials of Sustainable, Enjoyable Trails*** (Parker 2004): *http://www.natureshape.com*
- ***Recreation Opportunity System*** (ROS) (U.S. Department of Agriculture, Forest Service 1982): *http://www.fs.fed.us/r4/ashley/projects/forest_plan_revision/ros.shtml*

- ***The Built Environment Image Guide*** (U.S. Department of Agriculture, Forest Service 2001): *http://www.fs.fed.us/recreation/programs/beig*
- ***Trail Design for Small Properties*** (Baughman and Serres 2006): *http://shop.extension.umn.edu*
- ***Trails Design and Management Handbook*** (Parker 1994): *http://www.natureshape.com*
- ***Trails for the Twenty-first Century: Planning, Design, and Management Manual for Multi-Use Trails, 2d Edition*** (Flink and others 2001): Available at book outlets.
- **Visual Resource Management** (VRM) (U.S. Department of the Interior, Bureau of Land Management 2003): *http://www.blm.gov/nstc/VRM*
- ***VRM Design Techniques*** (U.S. Department of the Interior, Bureau of Land Management 2003): *http://www.blm.gov/nstc/VRM/destech.html*

Rails-to-Trails

- **National Trails Training Partnership:** *http://www.americantrails.org/resources/railtrails*
- **Pedestrian and Bicycle Information Center:** *http://www.bicyclinginfo.org/rt*
- **Rails-to-Trails Conservancy:** *http://www.railtrails.org*

Railways

- **Federal Railroad Administration:** *http://www.fra.dot.gov*
- **Operation Lifesaver Rail Safety Education:** *http://www.oli.org*
- ***Rails-with-Trails: Lessons Learned*** (Alta Planning and Design 2002): *http://www.fhwa.dot.gov/environment/rectrails/rwt*
- ***Rails-with-Trails: Lessons Learned Appendix B: State-by-State Matrix of Applicable Laws and Statutes*** (Alta Planning and Design 2002): *http://www.fhwa.dot.gov/environment/rectrails/rwt/appendixb.htm*

Signs

- ***Manual on Uniform Traffic Control Devices*** (MUTCD) (U.S. Department of Transportation, Federal Highway Administration 2004a): *http://mutcd.fhwa.dot.gov*
- ***MUTCD Chapter 2H Recreational and Cultural Interest Area Signs*** (U.S. Department of Transportation, Federal Highway Administration 2004): *http://mutcd.fhwa.dot.gov/HTM/2003r1/part2/part2h.htm*
- ***MUTCD Standard Highway Signs*** (U.S. Department of Transportation, Federal Highway Administration 2004b): *http://mutcd.fhwa.dot.gov/ser-shs_millennium.htm*
- ***Sign and Poster Guidelines for the Forest Service, EM–7100–15*** (U.S. Department of Agriculture, Forest Service 2005): Forest Service employees can request electronic copies from Forest Service regional sign coordinators.
- ***Signs and Posters Toolbox*** (Wilderness.net 2005): *http://www.wilderness.net/index.cfm?fuse=toolboxes&sec=signsPosters*
- ***Signs, Trails, and Wayside Exhibits: Connecting People and Places, Third Edition*** (Trapp and others 1996): *http://www.uwsp.edu/cnr/schmeeckle/Handbooks/Signs*

Toilet and Shower Buildings

- **Technical articles on toilets** (U.S. Department of Agriculture, Forest Service, Technology and Development Program): *http://www.fs.fed.us/t-d/pubs.* This Web site requires a username and password. Search the Web site using the keywords *toilet* and *shower.* (Username: t-d, Password: t-d)
- **Campground Comfort Station construction plans** (Louisiana State University Agricultural Center 1969): *http://www.lsuagcenter.com/en/our_offices/departments/Biological_Ag_Engineering/Features/Extension/Building_Plans/recreation/equipment/Campground+Comfort+Station.htm*

Trail Construction

- ***Stock-Drawn Equipment for Trail Work*** (Didier and Herzberg 1996): *http://www.fs.fed.us/t-d/pubs/htmlpubs/htm96232802.* (Username: t-d, Password: t-d)
- ***Trail Construction and Maintenance Notebook: 2007 Edition*** (Hesselbarth, Vachowski, and Davies 2007): *http://www.fs.fed.us/t-d/pubs/htmlpubs/htm07232806.* This Web site requires a username and password. (Username: t-d, Password: t-d)

Trail Management

- ✯ **Trails Management Handbook FSH 2309.18, Chapter 4—Trail Operation and Maintenance** (U.S. Department of Agriculture, Forest Service 1991): *http://www.fs.fed.us/im/directives/fsh/2309.18/2309.18,4.txt*
- ✯ ***Conflicts on Multiple-Use Trails: Synthesis of Literature and State of the Practice*** (Moore 1994): *http://www.fhwa.dot.gov/environment/conflicts*
- ✯ ***Interagency Trail Data Standards*** (U.S. Department of the Interior, Bureau of Land Management, National Park Service and Fish and Wildlife Service; U.S. Department of Agriculture, Forest Service 2004): *http://www.nps.gov/gis/trails*
- ✯ ***Rail-Trail Maintenance and Operation: Ensuring the Future of Your Trail—A Survey of 100 Rail-Trails*** (Poole 2005): *http://atfiles.org/files/pdf/railtrailmaint.pdf*
- ✯ ***Recreation & Heritage Resources Integrated Business Systems*** (U.S. Department of Agriculture, Forest Service): *http://www.fs.fed.us/r3/measures*
- ✯ ***Trail Maintenance and Management*** (National Trails Training Partnership): *http://www.americantrails.org/resources/ManageMaintain*
- ✯ ***Trail Assessment and Condition Surveys (TRACS)*** (U.S. Department of Agriculture, Forest Service): *http://www.fs.fed.us/r3/measures*

Trail Terms

- ✯ ***Designing Sidewalks and Trails for Access—Glossary*** (U.S. Department of Transportation, Federal Highway Administration 2001): *http://www.fhwa.dot.gov/environment/sidewalk2/sidewalks2ag.htm*
- ✯ ***Glossary of Terms*** (National Trails Training Partnership 2003): *http://www.americantrails.org/glossary.html*
- ✯ ***Helpful and Interesting Acronyms*** (Rails-to-Trails Conservancy 2007): *http://www.railtrails.org/whatwedo/railtrailinfo/resources/acronyms.html*
- ✯ ***Horse Glossary*** (Gaited Horses 1998–2003): *http://www.gaitedhorses.net/Articles/HorseGlossary.html*

Weeds and Vegetation

- ✯ ***Backcountry Road Maintenance and Weed Management*** (Ferguson and others 2003): *http://www.fs.fed.us/t-d/pubs/htmlpubs/htm03712811.* This Web site requires a username and password. (Username: t-d, Password: t-d)
- ✯ ***Federal Interagency Committee for the Management of Noxious and Exotic Weeds*** (FICMNEW): *http://www.fws.gov/ficmnew*
- ✯ ***Invasive Species Management*** (National Park Service): *http://www.nature.nps.gov/biology/invasivespecies*
- ✯ ***Cornell University Poisonous Plants Informational Database*** (Cornell University 2006): *http://www.ansci.cornell.edu/plants*
- ✯ ***Do Horses Spread Non-Native Plants on Trails?*** (Gower 2007): *http://www.thehorse.com/ViewArticle.aspx?ID=8846* This site requires free registration.
- ✯ ***Horse Owner's Field Guide to Toxic Plants*** (Burger 1996): Available at book outlets.
- ✯ ***Roadside Use of Native Plants*** (Kartesz and others 2000): *http://www.fhwa.dot.gov/environment/rdsduse*
- ✯ ***Poisonous Range Plants of Temperate North America*** (Merck & Co., Inc. 2008): *http://www.merckvetmanual.com/mvm/htm/bc/ttox04.htm*
- ✯ ***Ten Most Poisonous Plants for Horses*** (*EQUUS* June 2004): *http://www.equisearch.com/horses_care/feeding/feed/poisonousplants_041105*
- ✯ ***Weed Free Feed: Horsemen Protecting Public Lands from Invasive Weeds*** (Davis and Bay Area Equestrian Network 2000–2007): *http://www.extendinc.com/weedfreefeed*
- ✯ ***Weeds Website*** (U.S. Department of the Interior, Bureau of Land Management 2005): *http://www.blm.gov/weeds*

Appendix D—

Trail Proposal and Evaluation Process: Open Space and Trails Program (Pitkin County, CO)

D

Trails are not as simple as they may appear. Every trail, as a long-term community resource, must be well designed, planned, and constructed in order to best serve the public and meet the goals of the Pitkin County Open Space and Trails Program. Because the County wants each trail to be unique and as well fitted to its site, users, purpose, and goals as possible, the County has created a dynamic trail design and management approval process.

This approval process works with you. It walks you through the design of your trail, reminds you of things you didn't think of, and actually helps you to design good trails. Taking the site, the trail, the users, the purpose of the trail, and the County's goals into account, the process helps you develop a unique trail which is very well suited to all of these. The process helps guide the design and improve the quality of trails while they are still in the conceptual stage—use it as a learning tool and work with it (and the County) to generate high-quality trails. The rewards are excellent community trails which will be used and enjoyed for decades.

How to Propose a New Trail

The Pitkin County Open Space and Trails Board will apply the outline on the following pages as they examine a trail proposal, prepare specific design (and acquisition, when applicable) recommendations, and adopt a long-term management plan for a proposed new trail. The County will also use this outline as it periodically reviews the management of trails which pre-date the Open Space and Trails Program. If you are proposing a trail project, you need to address all the issues in this outline. The outline exists to help you design your trail and to help the County gather as much information about your trail as needed. By the time you complete the outline, you will know a great deal about how to create a good trail. The outline also makes it easier for you and the County to optimize opportunities whenever possible and to spot and correct problems in the conceptual stage. Every proposed trail will likely have less than optimal factors, and the presence of these will not necessarily affect the approval of your trail. Keep in mind that all of the outline issues have to be considered at some stage in the birth and life of a trail—completing the outline now helps you to think in advance of what you would have to address eventually.

The outline is keyed to the Trail Design Process and Guidelines in Section 1 of this Handbook [*Trails Design and Management Handbook*]. You should read and apply the contents of Section 1 to the proposed trail before attempting to complete your proposal outline. In order to respond to the questions, you should be familiar with the proposed site of the trail as well as with the basic design and construction techniques presented in Sections 2 and 3 of this Handbook.

In your written proposal, you may use any format you choose as long as you address all the issues in this outline.

The items below are keyed to the Trail Design Process and Guidelines in Section 1. Please refer to that section for the full meaning behind the following questions, then prepare a response for each of these topics (and any other relevant issues) for presentation and adoption by the Open Space and Trails Board and the Pitkin County Commissioners.

In completing your proposal:

- Be familiar with the site of the trail and with your proposed trail alignment in that site.
- Review the County's goals for the Open Space and Trails Program given in the Introduction of this Handbook.
- Refer to Section 1 for trail design guidelines which pertain to the trail. The trail should meet as many of these guidelines as possible.
- Refer to Sections 2 and 3 to get a working knowledge of the construction techniques needed to build and maintain the trail.

Your responses to the questions posed in the outline can and should refer back to specific sections of this Handbook when appropriate.

A. General Information

1. Briefly describe the location of the trail and why a trail is desirable here. Include the purpose of the trail (destination trail, recreational trail, connector trail). If the trail has more than one purpose, explain each in the order of importance. (See Section 1 Parts A and B).
2. Who are the expected users? In broad terms, how much use from each user type can be expected now and in the future? (See Section 1 Part C).
3. Is the trail clearly suited for some users at the exclusion of others (and if so, who)? Can use of this trail be provided for the physically challenged? (See Section 1 Part C).
4. What user conflicts can be expected and how does the trail design work to mitigate or avoid them? What trail user groups are interested in this trail? (See Section 1 Part C).
5. Which trail type should this trail be (hard surface multiple use, crusher fines, or natural surface), and why is this the best choice? (See Section 1 Part D).

B. Mapping

A site map is required for all trails:

1. Prepare a 24" x 36" site map, using a USGS 1:24,000 series topographic map or a superior topographic map as the base, enlarged to at least 1"=300' scale, that approximately depicts the "parent" property parcel as well as the surrounding 200–300' perimeter of adjoining lands, and the location of the present or proposed trail. If necessary, use multiple 24" x 36" sheets. Also indicate the approximate property lines of all adjoining property parcels within that 200–300' perimeter, and prepare a listing of their owners' names and addresses, keyed to the map.
2. Transcribe to the site map, and prepare a map key of the applicable "Areas & Activities of Local and State Interest" (more commonly known as the "1041 Hazards") from the following list (note in the map key those Hazards or Areas which are not applicable to the site):
    - Geologic Hazards
        - Soils
        - Avalanche Hazard
        - Debris Flows
        - Rockfall
    - Slopes
    - Wildfire Hazard
    - Wildlife Habitat
    - Floodplain
    - Scenic Overlay
    - Historic & Archaeological Resources
    - Areas Around Key Facilities

3. On the mapped trail alignment, note the locations of major structures such as bridges, underpasses, large cuts or fills, large retaining walls, trailheads, etc. Also (if known), locate any easements, utilities, or agricultural parcels that are in or adjoin the alignment.

C. Trail Corridor Guidelines

Items in this part are keyed to Section 1 Part E:

1. Briefly describe the desirable and undesirable features of the proposed trail corridor. Explain what can be done to mitigate any undesirable features and why any undesirable features should be deemed acceptable. (See Section 1 Part E).
2. Does the proposed corridor use, preserve, or enhance a natural corridor or one with many desirable open space values? (See Section 1 Part E).
3. What present or future linkages or access would this trail create or preserve? If this is an urban or suburban trail, would it function as a part of an alternate transportation web? What factors will contribute to increased or decreased use of the trail?
4. Are any spur trails proposed that would increase access, and if so, where? Does the proposed trail create possibilities for loops and varied trips?
5. What are the potential impacts of the projected levels of trail use (both now and in the future) on adjoining private property owners, agricultural operations, public lands, and communities?
6. If the proposed alignment follows property lines, highway rights-of-way, utility corridors, or other man-made corridors, what are the positive and negative features of this alignment? In accordance with the guidelines in Section 1 Part F, describe how alignments, trailside improvements, and design solutions can improve the users' trail and open space experience in a less than optimal corridor.
7. If land has not already been obtained, is it or will it be possible to follow the corridor selection process as described in Section 1 Part G? If not, what corridor planning measures can be taken to ensure that the best possible corridor is obtained? (See Section 1 Part G).

D. Existing Trail Conditions Audit

If this is an entirely new trail, the questions in this part can be skipped. Otherwise, respond to each of the following questions:

1. What are the present modes of trail use (whether authorized or not)?
2. What is the present intensity of trail use?
3. What, if any, are the safety concerns associated with present use?
4. Does this trail provide a linkage with existing trails, or provide access to public lands? Does this trail form a loop by itself or by linking other trails?
5. Is present trail use considered unauthorized trespass by the owner?
6. Is the present owner flexible about relocating the trail on the property?
7. What are the present impacts on adjoining property owners?
8. Describe the impacts of present trail use on the following features of this property:
    - Ecological/Wildlife
    - Cultural/Historical
    - Agricultural
    - Scenic

E. General Trail and Corridor Design

Items in this part are keyed to Section 1 Part H:

1. What design features are planned that will help the trail achieve the "fit" and economy of design described in Section 1 Part H? Please include specifics on how the trail will achieve "fit", respect and appreciation of land, freedom from design contradictions, simple but effective solutions, a sense of belonging on its site, and a fresh user experience each time.
2. Briefly describe some of the ways in which a "limited unpredictability" will be built into the trail (see Section 1 Part H). Also describe some design solutions by which "the master-planned feel" will be lessened without being inconsistent in design or adding contrived features or treatments.
3. What aspects of the trail will make it enjoyable and fun to use?

F. Relationship Between Trail and Site

Items in this part are keyed to Section 1 Part I:

1. Is the site inherently interesting? If so, briefly describe why. If not, how can the trail still create the best experience from it, and would another alignment create a more interesting site?
2. Describe the sequence of ecosystems and environments the trail will pass through and how this will create an interesting experience for the user.
3. Will the trail follow landforms and traverse fall lines in such a way that the trail seems to belong there? If not, why? How will the trail be designed and constructed in an unobtrusive way such that the trail seems like it has always been there?
4. How will trail structures blend with the landscape?
5. Describe the site preservation and revegetation techniques that will be used to keep and maintain trailside vegetation.
6. What site features will be highlighted, and how will this be done?
7. What "1041" hazards are present and how will they be handled? (see list of "1041" hazards in Section 1 Part I).
8. Could the alignment disturb sensitive environments such as wetlands, migration routes, and critical wildlife habitat? Are there any endangered plants or animals which might be disturbed by the trail or its users? If so, how? If the trail could disturb these features, explain why this disturbance is acceptable. Could any problems identified above be resolved through mitigation measures on the present or applicant-proposed alignment? Also indicate any other possible alignments which could avoid the sensitive areas.
9. What are the impacts of the trail and trail corridor on adjacent landowners?
10. If the trail passes through an agricultural parcel, how might agricultural uses be impacted? How will any impacts be minimized or mitigated?
11. What are the possible impacts of adjacent landowners and agricultural operations on trail users and open space values?
12. If site repair is to be used in any part of the trail corridor, explain what will be done and how this will blend with the remainder of the site and trail.
13. Describe the width of the trail corridor and how the width changes to accommodate various features. Where the corridor is narrow, explain how the trail can fit in the corridor. Where on the map is the recommended final easement location?
14. Are there alternate alignments which could eliminate or mitigate any problems revealed elsewhere in this proposal? If so, describe how and map them, naming and keying the alternate alignments. If the alternate alignments create other problems, please discuss why the proposed alignment is the best option.

G. Safety and Human Aspects

Items in this part are keyed to Section 1 Part J:

1. In what ways will safety be designed into the trail?
2. What are the widths of the trail and other design features for accommodating the expected number of users?
3. Are there any expected violations of County standards on curve radii, grades, sight lines, and other safety features? If so, can these situations be eliminated with another alignment? If not, how can unavoidable situations be made as safe as possible?
4. If the trail crosses any driveways, streets, roads, highways, or other trafficways, how will the crossing be handled? If the crossing is not grade-separated, can another alignment be found or created which is grade-separated (see Section 1 Part J).
5. How will the privacy of neighbors along the trail corridor be preserved?
6. If this trail is to be used in the winter, what features will be incorporated for winter use?

D

H. Construction

Items in this part are keyed to Section 1 Part K:

1. Who will build the trail? Who should have maintenance responsibility for this project? (See Section 1 Part K).
2. Of the construction standards given in Sections 2 and 3 for your trail type (trailheads, signs, fencing, bridges, underpasses, intersections, retaining walls, railings, revegetation, site restoration, special features for particular user groups, drainage issues, and the like), list by name all that are applicable to this trail. For major, labor intensive, expensive, or unusual construction items, please give additional information which can be used as the basis for rough cost analysis—for example, give the number of and approximate lengths of bridges, approximate lengths and heights of retaining walls, trailhead requirements, etc. Please give as much detail as you can.
3. Given snow, snowmelt, wildlife zones, revegetation requirements, and other site conditions, during what months of the year could the trail be constructed?
4. Are any parts of the trail difficult to build because of a fragile or difficult site, access problems, low clearance, buried and overhead utilities, and the like? If so, how can these parts of the trail be built?
5. Will construction of the trail require a special short-term construction easement that is wider than the final trail easement? If so, what is the recommended construction easement location?
6. What features will give the trail the maximum lifespan as described in the guidelines for this trail type?

I. Maintenance

Items in this part are keyed to Section 1 Part L:

1. Who should have maintenance responsibility for this project?
2. What aspects of the design give the trail minimum maintenance requirements?
3. Estimate the expected maintenance requirements for the trail at 4–6 months, 1 year, 5 years, and 20 years.
4. Will arrangements be made with the trail contractors, maintenance group, management group, and other involved groups for required formal design and maintenance reviews at 4–6 months and one year after completion?
5. What is the proposed schedule for maintenance inspections (see Section 1 Part L)

J. Stewardship

Items in this part are keyed to Section 1 Part M:

1. Should the trail fall under County jurisdiction and enforcement of Open Space and Trails Rules? If so, should any special rules or exceptions apply to this trail? If not, who will have jurisdiction, and what rules will apply?
2. Describe the trail management plan which should be adopted. If there are any difficult management issues (issues which are likely to be a serious problem or an area of serious dispute), what are they and how might the issues be addressed?
3. Who should be accountable for implementation of the management plan? Are there potential partners, such as organized user groups, or other governmental agencies, who can assist in the management of this trail and, if so, in what ways?
4. If the trail passes through sensitive wildlife zones, will seasonal trail closure be necessary to protect wildlife? If so, how should this closure be handled?
5. How should this trail be promoted, if at all, and by whom?
6. Do all aspects of the proposed trail and trail corridor work within the Open Space and Trails Program General Objectives and Policies? If not, describe how it doesn't and why an exception should be made.

—*Excerpted from* Trails Design and Management Handbook *(Parker 1994). Courtesy of the author. Used with permission of Pitkin County, CO, Open Space and Trails Program.*

Appendix E—
Sample Evaluation Criteria for Trail Corridor Suitability Analysis

Weight	Attribute	Point range
1	**Local link**—Neighborhood park, equestrian center, neighborhood school, local open space corridor, neighborhood commercial center, and so forth 0 No, the trail does not link to local destinations. 1 Yes, the trail links indirectly to local destinations. 2 Yes, the trail links directly to local destinations or no other route exists.	0 to 2
1.5	**Regional link**—Regional park, regional trail, regional open space, major equestrian center, place of commerce or employment concentration, high school, community college, university, and so forth 0 No, the trail does not link to regional destinations. 1 Yes, the trail links indirectly to major regional destinations (links to other trail or trails that directly connect) or; yes, links directly to minor destination. 2 Yes, the trail links directly to major regional destination, such as a potential Signature Trail or; yes, the trail is a critical link in regional trail.	0 to 3
1	**Loop link** 0 The trail completes no loop. 1 The trail completes a portion of existing or potential loop. 2 The trail completes a portion of more than one existing or potential loops.	0 to 2
1	**Equestrian impact on adjacent land use** 0 Equestrian use of the corridor infringes on privacy of adjacent property. 1 Equestrian use of the corridor has a negligible impact on adjacent land use. 2 Equestrian use of the corridor complements the adjacent land use.	0 to 2

Weight	Attribute	Point range
1.5	**Adjacent land-use impact on equestrian experience** 0 Adjacent land use creates a negative experience to the equestrian corridor user. The corridor is defined by its adjacent negative or unsafe features to the equestrian user (loud noises, shooting range, golf driving range, model airplane area, unattractive site, railway corridors, and so forth). 1 Adjacent land use has some features negative to the equestrian user, but is not defined by it; or the corridor has primarily positive features but the corridor is not the experience in itself and is rather the means to accessing primary feature. 2 The corridor itself is defined by its positive equestrian features (scenic vistas, proximity to historic, cultural or natural sites, proximity to equestrian destinations, such as arenas and stables) and its lack of negative features.	0 to 3
1.5	**Most suitable trail type** 0 A paved pathway would better serve existing or potential use of corridor. 1 There is some or moderate existing or potential use or demand by equestrians. 2 There is heavy existing or potential use or demand by equestrians.	0 to 3
1.5	**Access/usability** 0 The trail corridor has few or minimal available access points and/or the corridor is convoluted and/or the corridor itself is confusing, or the corridor connection to other corridors is confusing. 1 The corridor has limited available access points and/or some confusing aspects. 2 The corridor has numerous available access points and/or flows easily along logical corridors.	0 to 3

Weight	Attribute	Point range
2	**Safety** 0 The corridor includes numerous hazards that create a sense of danger to horses and riders (overly-constricted corridor for shared-use and so forth). 1 The corridor has existing or potential safety problems that could be mitigated with reasonable effort. 2 The corridor is free of hazards and fosters a sense of safety and security.	0 to 4
1.5	**Trail/traffic relationship** 0 There is significant existing or potential conflict resulting from trail proximity to high-speed traffic or forced at-grade crossing without a signal. 1 There is some existing or potential conflict resulting from relative trail proximity to some traffic or at-grade crossing with signal or stop sign. 2 There is minimal existing or potential conflict (comfortable set-back from street and connections through grade-separated crossings or low risk at-grade crossings).	0 to 3
1.5	**Land availability** 0 The corridor is not currently or likely not available for use as equestrian corridor. 1 The corridor is not currently secured for public use, but public use is possible. 2 The corridor is currently under public control or is otherwise legally available for public access.	0 to 3

Appendix F—Summary of Accessibility Legislation, Standards, and Guidelines

Some Laws Governing Accessibility in the United States

Laws for Federal Agencies

A 1968 law—the Architectural Barriers Act (ABA)—requires that facilities built, bought, rented, or leased by or on behalf of a Federal agency must be accessible. A 1973 law—Section 504 of the Rehabilitation Act—requires provision of equal opportunity for individuals with disabilities to participate in all Federal or federally funded programs and activities. A 1990 law—the Americans with Disabilities Act (ADA)—does not apply to Federal agency programs and facilities, except for Title V Section 507, which pertains to federally designated wilderness areas.

The 1994 U.S. Department of Agriculture (USDA) regulation—7 CFR 15b and 15e—is the USDA's implementation of Section 504. It specifies requirements for ensuring the accessibility of programs and activities conducted by or for USDA agencies. Other agencies have similar specific requirements. More information is available at:

- ABA—*http://www.access-board.gov/about/laws/ABA.htm*
- Section 504—*http://www.access-board.gov/enforcement/Rehab-Act-text/intro.htm*
- ADA Title V—*http://www.access-board.gov/about/laws/ADA.htm#TITLE%20V%20-%20MISCELLANEOUS%20PROVISIONS*
- CFR15b—*http://www.access.gpo.gov/nara/cfr/waisidx_03/7cfr15b_03.html*
- CFR15e—*http://www.access.gpo.gov/nara/cfr/waisidx_03/7cfr15e_03.html*

Laws for the Private Sector and State and Local Governments

The Americans with Disabilities Act (ADA) prohibits discrimination based on disability in public accommodations, businesses open to the public, and commercial transportation in the private sector and in State and local government. This law includes requirements for accessible programs, new construction, renovation, transportation, and telecommunications, as well as reasonable accommodation for employment. The ADA is modeled on the 1968 Architectural Barriers Act and Section 504 of the Rehabilitation Act of 1973. Information about the ADA is available at *http://www.access-board.gov/about/laws/ADA.htm*.

Guidelines and Standards Resulting From These Laws

The Architectural and Transportation Barriers Compliance Board (also known as the U.S. Access Board or Access Board) is responsible for establishing and maintaining guidelines to ensure that new or altered buildings and facilities covered by the ABA and ADA are accessible to people with disabilities. On July 23, 2004, the Access Board updated the ABA and ADA guidelines to make them more consistent and easier to understand.

The ADA guidelines are the basis for standards adopted by the Department of Justice (DOJ) and the Department of Transportation (DOT). The ABA guidelines are the basis for enforceable standards issued by four standard-setting Federal agencies—the Department of Defense (DOD), the General Services Administration (GSA), the Department of Housing and Urban Development (HUD), and the U.S. Postal Service (USPS). The USDA, including the Forest Service, follows standards set by the GSA.

On November 8, 2005, the GSA adopted portions of the ABA guidelines as the Architectural Barriers Act Accessibility Standard (ABAAS). For construction or alteration of federally-owned facilities addressed by the ABAAS, compliance depends on the date construction or alteration began.

If construction or alteration began after May 8, 2006, compliance with the ABAAS is required. If construction or alteration began on or before May 8, 2006, compliance with the Uniform Federal Accessibility Standards (UFAS) is required.

Information about the ADA and ABA guidelines is available at *http://www.access-board.gov/ada-aba*.

Other Relevant Guidelines

The *Forest Service Outdoor Recreation Accessibility Guidelines* (FSORAG) provide guidance for campsites, tent pads and platforms, viewing overlooks, outdoor showers, picnic tables, fire rings and grills, and toilets as well as other facilities in the National Forest System. The *Forest Service Trail Accessibility Guidelines* (FSTAG) provide the specific information needed to maximize accessibility, while protecting the resource on newly constructed or altered pathways or trails that are designed for pedestrian or hiker use. The FSORAG and FSTAG provide guidance for maximizing accessibility while recognizing and protecting the unique characteristics of the natural setting and the resources. Information about the FSORAG and FSTAG is available at *http://www.fs.fed.us/recreation/programs/accessibility*.

Appendix G— Sample Requirements for Weed-Free Feed (BLM)

Weed-Free Hay Required on Utah Public Lands

The Bureau of Land Management announced that users of BLM administered land in Utah will be required to use only certified noxious weed-free hay, straw or mulch. Approved products for livestock feed on public lands include pellets, hay cubes, processed and certified hay available at some feed stores in Utah. As a reminder, the guideline for supplemental feeding livestock on BLM land in Utah states, "feeding of hay and other harvested forage (which does not refer to miscellaneous salt, protein, and other supplements) for the purpose of substituting for inadequate natural forage *will not be conducted* on BLM lands other than in (a) emergency situations where no other resource exists and animal survival is in jeopardy, or (b) situations where the Authorized Officer determines such a practice will assist in meeting a Standard or attaining a management objective."

Noxious weeds are a serious problem in the Western United States and are rapidly spreading at an estimated rate of 14 percent each year. Species like Leafy Spurge, Squarrose Knapweed, Russian Knapweed, Musk Thistle, Dalmatian Toadflax, Purple Loosestrife, and many others are alien to the United States and have no natural enemies to keep the population in balance.

"Among other things, widespread infestations can lead to soil erosion and stream sedimentation." Noxious weeds impact revegetation efforts by out-competing desirable species, they reduce wild and domestic grazing capacities, can occasionally irritate public land users by aggravating allergies, and certainly threaten our federally protected plants and animals.

Utah State Department of Agriculture has developed a crop field inspection and certification process which will allow participants to have their hay certified as noxious weed-free. Certification requirements will comply with the Utah Department of Agriculture. Producers can obtain bale identification tags from the Department.

Region Four, of the United States Forest Service, has required noxious weed-free hay, straw and mulch on Utah National Forests since January 1994.

Anyone who knowingly and willfully violates the noxious weed-free certification requirement on BLM and Forest lands may be subject to a fine of no more than $1,000 or imprisonment of not more than 12 months, or both, as defined in *43 U.S. Code 1733(a)*.

Appendix H—Sample Requirements for Weed-Free Feed (Forest Service)

Special Order
Occupancy and Use on National Forest System Lands in the State of Montana

Pursuant to the Regulations of the Secretary of Agriculture, Title 36 CFR 261.50 (a) and (b), the following acts are prohibited within all National Forest System lands within the State of Montana.

These restrictions are in addition to those enumerated in Subpart A, part 261, Title 36 of the Code of Federal Regulations and will remain in effect from October 6, 1997, until rescinded or revoked.

1. The possession or storage of hay, grain, straw, cubes, pelletized feed or mulch that is not certified as being noxious weed free or noxious weed seed free by an authorized State Department of Agriculture official or designated county official; each individual bale or container must be tagged or marked as weed free and reference the written certification (36 CFR 261.58 (t))

Pursuant to 36 CFR 261.50 (e), the following are exempt from this Order:
A. Persons with a permit specifically authorizing the action or omission.
B. Transporting feeds, straw, or hay on Federal, State, and county roads that are not Forest Development Roads or Trails.

The above restrictions are necessary to prevent the spread of noxious weeds on National Forest System lands (16 USC 551). Upon issuance of this order, all previous orders requiring the use of certified noxious weed free or noxious seed free forage on NFS lands in Montana shall be superseded.

Violation is punishable by a fine of up to $5,000 and /or up to six months imprisonment (16 U.S.C. 551 and 18 U.S.C. 3571 (b) (6).

(Signed) Kathleen A. McAllister 10–08–97
for: Hal Salwasser
Regional Forester
Northern Region

—This document was supplied by the Lolo National Forest, Missoula, MT.

Appendix I— Sample Equine Liability Act (New Mexico)

The Legislature of the State of New Mexico, 41st. Legislature, 1st. Session, Laws 1993, chapter 117: Senate Judiciary Committee Substitute for Senate Bill 268, as amended, introduced by Senator Virgil Rhodes.

AN ACT, RELATING TO TORT LIABILITY; ENACTING THE EQUINE LIABILITY ACT.

BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF NEW MEXICO:

Section 1. SHORT TITLE. This act may be cited as the "Equine Liability Act".

Section 2. LEGISLATIVE PURPOSE AND FINDINGS. The legislature recognizes that persons who participate in or observe equine activities may incur injuries as a result of the numerous inherent risks involved in such activities. The legislature also finds that the state and its citizens derive numerous personal and economic benefits from such activities. It is the purpose of the legislature to encourage owners, trainers, operators and promoters to sponsor or engage in equine activities by providing that no person shall recover for injuries resulting from the risks related to the behavior of equine animals while engaged in any equine activities.

Section 3. DEFINITIONS. As used in the Equine Liability Act,
A. "equine" means a horse, pony, mule, donkey or hinny;

"B. "equine activities" means:

1. equine shows, fairs, competitions, rodeos, gymkhana, performances or parades that involve any or all breeds of equines and any of the equine disciplines; 2. training or teaching activities; 3. boarding equines; 4. riding an equine belonging to another whether or not the owner has received some monetary consideration or other thing of equivalent value for the use of the equine or is permitting a prospective purchaser of the equine to ride, inspect or evaluate the equine; 5. rides, shows, clinics, trips, hunts or other equine occasions of any type, however informal or impromptu, connected with any equine or nonequine group or club; 6. equine racing;

C. "behavior of equine animals" means the propensity of an equine animal to kick, bite, shy, buck, stumble, bolt, rear, trample, be unpredictable or collide with other animals, objects or persons, and

D. "rider" means a person, whether amateur or professional, who is engaged in an equine activity.

Section 4. LIMITATION ON LIABILITY.

A. No person, corporation or partnership is liable for personal injuries to or for the death of a rider that may occur as a result of the behavior of equine animals while engaged in any equine activities.

B. No person, corporation or partnership shall make any claim against, maintain any action against or recover from a rider, operator, owner, trainer or promoter for injury, loss or damage resulting from equine behavior unless the acts or omissions of the rider, owner, operator, trainer or promoter constitute negligence.

C. Nothing in the Equine Liability Act shall be construed to prevent or limit the liability of the operator, owner, trainer or promoter of an equine activity who:

1. provided the equipment or tack, and knew or should have known that the equipment or tack was faulty and an injury was the proximate result of the faulty condition of the equipment or tack; 2. provided the equine and failed to make reasonable and prudent efforts to determine the ability of the rider to: a. engage safely in the equine activity; b. safely manage the particular equine based on the rider's representations of his ability; 3. owns, leases, rents or otherwise is in lawful possession and control of the land or facilities upon which a rider sustained injuries because of a dangerous condition that was known to the operator, owner, trainer or promoter of the equine activity; 4. committed an act or omission that constitutes conscious or reckless disregard for the safety of a rider and an injury was the proximate result of that act or omission; or 5. intentionally injures a rider.

Section 5. POSTING OF NOTICE. Operators, owners, trainers and promoters of equine activities or equine facilities, including but not limited to stables, club-houses, ponyride strings, fairs and arenas, and persons engaged in instructing or renting equine animals shall post clearly visible signs at one or more prominent locations that shall include a warning regarding the inherent risks of the equine activity and the limitations on liability of the operator, owner, trainer or promoter.

RELEASE STATEMENT – A release statement used by an operator, equine animal owner, property owner, trainer or promoter of equine activities should include the warning that there are inherent risks to participants and observers involved in all activities with equine animals due to the propensity of an equine animal to kick, bite, shy, buck, stumble, bolt, rear, trample, be unpredictable or collide with other animals, objects or persons. The statement should also include a warning that New Mexico state law provides that no person, corporation or partnership is liable for personal injuries to or for the death of a rider (or other participant) that may occur as a result of the behavior of equine animals while engaged in any equine activities, and that the rider (or other participant) agrees to engage in the equine activity at his own risk.

—*This document is available at* http://www.nmhorsecouncil.org/NMHC_Liability.html.

Appendix J— Sample Recreational Use Statute (Kentucky)

Kentucky Recreational Use Statute

KENTUCKY REVISED STATUTES ANNOTATED TITLE XXXVI: STATUTORY ACTIONS AND LIMITATIONS CHAPTER 411: RIGHTS OF ACTION AND SURVIVAL OF ACTIONS

411.190. Obligations of owner to persons using land for recreation

(1) As used in this section:

(a) "Land" means land, roads, water, watercourses, private ways and buildings, structures, and machinery or equipment when attached to the realty.

(b) "Owner" means the possessor of a fee interest, a tenant, lessee, occupant or person in control of the premises.

(c) "Recreational purpose" includes, but is not limited to, any of the following, or any combination thereof: hunting, fishing, swimming, boating, camping, picnicking, hiking, bicycling, horseback riding, pleasure driving, nature study, water skiing, winter sports, and viewing or enjoying historical, archaeological, scenic, or scientific sites.

(d) "Charge" means the admission price or fee asked in return for invitation or permission to enter or go upon the land but does not include fees for general use permits issued by a government agency for access to public lands if the permits are valid for a period of not less than (30) days.

(2) The purpose of this section is to encourage owners of land to make land and water areas available to the public for recreational purposes by limiting their liability toward persons entering thereon for such purposes.

(3) Except as specifically recognized by or provided in subsection (6) of this section, an owner of land owes no duty of care to keep the premises safe for entry or use by others for recreational purposes, or to give any warning of a dangerous condition, use, structure, or activity on such premises to persons entering for such purposes.

(4) Except as specifically recognized by or provided in subsection (6) of this section, an owner of land who either directly or indirectly invites or permits without charge any person to use such property for recreational purposes does not thereby:

(a) Extend any assurance that the premises are safe for any purpose.

(b) Confer upon the person the legal status of an invitee or licensee to whom a duty of care is owed.

(c) Assume responsibility for or incur liability for any injury to person or property caused by an act or omission of those persons.

(5) Unless otherwise agreed in writing, the provisions of subsections (3) and (4) of this section shall be deemed applicable to the duties and liability of an owner of land leased to the state or any subdivision thereof for recreational purposes.

(6) Nothing in this section limits in any way any liability which otherwise exists:

(a) For willful or malicious failure to guard or warn against a dangerous condition, use, structure, or activity.

(b) For injury suffered in any case where the owner of land charges the person or persons who enter or go on the land for recreational use thereof, except that in the case of land leased to the state or a subdivision thereof, any consideration received by the owner for the lease shall not be deemed a charge within the meaning of this section.

(7) Nothing in this section shall be construed to:

(a) Create a duty of care or ground of liability for injury to persons or property.

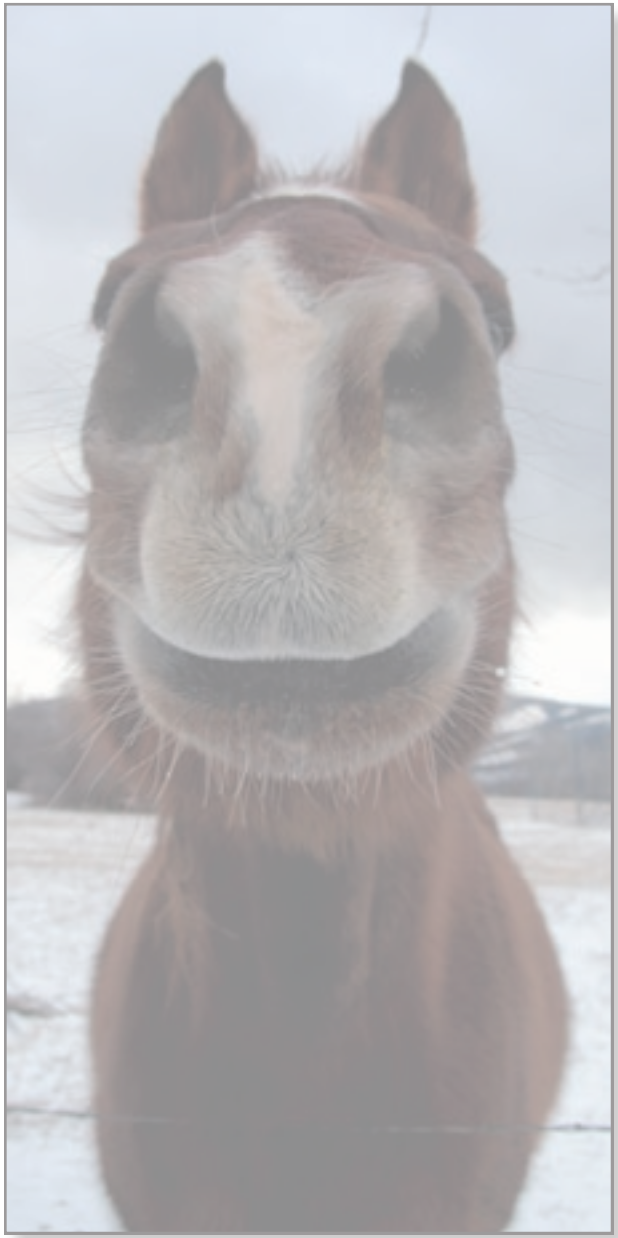
(b) Relieve any person using the land of another for recreational purposes from any obligation which he may have in the absence of this section to exercise care in his use of the land and in his activities thereon, or from the legal consequences of failure to employ such care.

EFFECTIVE: July 14, 2000

HISTORY: Amended 2000 KY. Acts Ch. 338, Sec. 12, effective July 14, 2000. —Amended 1998 KY. Acts Ch. 275, Sec. 12, effective July 15, 1998. —Created 1966 Ky. Acts Ch. 252, Secs. 1 to 7.

—This document is available at
http://www.americanwhitewater.org/resources/repository/Kentucky_Recreational_Use_Statute.htm.

Appendix K—English and Metric Conversions

	To convert from this unit	To this unit	Multiply by
From English to metric units	Inch	Millimeter	25.4*
	Inch	Centimeter	2.54*
	Foot	Meter	0.3048
	Square foot	Square meter	0.093
	Mile	Kilometer	1.6
	Square mile	Square kilometer	2.59
	Acre	Hectare (sq. hectometer)	0.405
	Pound	Kilogram	0.454
	Gallon	Liter	3.785
From metric to English units	Millimeter	Inch	0.039
	Centimeter	Foot	0.0328
	Kilometer	Mile	0.62
	Square kilometer	Square mile	0.386*
	Hectare	Acre	2.47
	Kilogram	Pound	2.202
	Liter	Gallon	0.264

* These items are exact conversion factors for the units—the others give approximate conversions.