#### CHAPTER 6 – FINDINGS AND RECOMMENDED ACTIONS

Bicycles are used worldwide as a part of the solution to congestion, air quality and health problems. In 1990, the FHWA Administrator described bicycling and walking as "the forgotten modes" of transportation. The USDOT adopted national transportation policy to mainstream bicycling into the transportation system. Federal land managers have the opportunity to serve as a positive national role model by implementing existing policies and mainstreaming bicycling into their transportation networks. This guide finds that bicycle transportation networks have significant positive impacts for the environment, health and visitor experience on Federal lands.

Chapters1 and 2 describe how bicycling can complement agency missions and assist Federal land managers in meeting goals.

Chapter 3 provides 12 bicycling case studies on Federal lands; gives examples of areas that limit automobile use; describes bike share programs and lists a sample of bicycle friendly organizations and programs.

Chapter 4 gives a background of each Federal agency's mission including the NPS, USFS, FWS and BLM and discusses bicycling related policies that complement agency missions. Bicycles are an underused tool that can help managers.

Chapter 5 provides a discussion of common issues land managers face with regard to bicycling. Naturally, bicycling is not appropriate and/or practical in all situations. In pursuing bicycling initiatives, issues that need to be addressed include safety, funding, and appropriateness relative to agency mission. Chapter 5 identifies useful resources and examples to help managers address problems and overcome barriers.

Chapter 6 provides a summary of the Guide. The following sections summarize key findings and recommended actions managers can take to further advance bicycling use on Federal lands.

#### **FINDINGS**

Many opportunities exist to deploy bicycle programs on Federal lands. Public demand for bicycling programs is increasing. Education is needed to convince many Federal land managers of the overall benefits of bicycling. Bicycling networks and programs can assist land managers by:

- Reducing transportation-related pollution and impacts on the environment;
- Providing better access to remote/sensitive areas;
- Enhancing the quality of visitor experiences;
- Dispersing visitors away from heavily used developed areas;
- Reducing automobile-related congestion and parking shortages;
- Promoting good health among the participants; and
- Creating a more balanced transportation and recreation network to preserve the landscape for future generations.

Federal land managers can receive significant help to leverage funds, and to implement and maintain bicycling networks by coordinating with bicycling groups, city/county/state/Federal agencies, non-profit organizations and other stakeholders. Bicycle friendly programs can offer

an enjoyable visitor experience that can attract additional visitors without adding to traffic congestion.

Characteristics of Successful Projects—Bicycle network continuity or connectivity is very important and should be considered at the initial planning stage. Regional bicycling master plans are a key component to establishing non-motorized network connectivity as well as connectivity to other transportation modes. Projects with multi-agency support and strong local backing can create bicycling networks that span across jurisdictional boundaries to connect Federal, state, county and city lands. "The Five Es" (engineering, encouragement, education, enforcement and evaluation) can be used to assess to what level a Federal land unit is bicycle friendly.

**Bicycling Policies**—Health and transportation policies are in place that support bicycling on Federal lands, but they could be improved and need to be actively implemented. Policies are currently implemented on a unit by unit basis rather than agency wide.

**Bicycling Examples and Resources**—A significant number of planning and design resources have been developed to support bicycling. Many successful bicycling programs exist both within and outside of Federal lands that can be used as models.

Issues and Challenges—Mainstreaming bicycling and walking has been a lower priority than maintaining roads on Federal lands. Capacity building within the Federal land management community that supports the promotion of bicycle programs is a significant challenge. The capacity of Federal land managers to build bicycle facilities and services lags behind similar resources available to serve road and transit needs. Nonmotorized transportation competes at a decided disadvantage with the current and traditional institutions and practices that support roads and public transit.

There are no Federal programs designed exclusively to finance the deployment of bicycle programs on Federal lands. Road and transit needs currently receive priority for the limited funding that is available and might otherwise be used for bicycle facilities. Bicycle program costs are modest when compared to the costs of providing equivalent mobility using other modes and minimal when compared to the cost in the degradation of natural and other resources associated with continuing past patterns of transportation investment on Federal lands.

Safety is a concern when bicycles and motor vehicles interact, but there are many different methods to address safety concerns.

### RECOMMENDED ACTIONS

This section recommends actions that land managers can take to further advance bicycle use on Federal lands. These actions are organized by planning/policy, design/implementation, promotion and safety/education activities.

# Planning/Policy

- Learn from other bicycling programs. Chapters 3 and 5 have many examples.
- Develop partnerships with stakeholders who have common interests. Partnerships can guide bicycle programs, provide technical support, leverage funding and manage and maintain non-motorized networks.
- Integrate bicycling into the land unit's long range transportation plan.

- Get involved in the state, regional, and local transportation planning process.
- Find out if your region has a bicycle master plan and get involved. Support safe bicycling connections between gateway communities and public lands.
- Adopt a Complete Streets policy to ensure safe access for all roadway users.
   (<a href="http://www.completestreets.org/">http://www.completestreets.org/</a>). Consider bicyclists and pedestrians as part of every new road construction and reconstruction project.
- Participate in programs such as the Eno Transportation Foundation's National Park
  Transportation Scholars Program and Transportation Interpreter Program to assist with
  transportation planning and promoting alternatives to private automobile travel in
  National Parks. (<a href="http://www.enotrans.com/Programs/NPS.htm">http://www.enotrans.com/Programs/NPS.htm</a>)
- Incorporate bicycling and pedestrian modes into job descriptions when advertising for staff that will have planning and/or land unit management responsibilities.
- Incorporate bicycling issues into staff training. Many conferences and trainings address non-motorized issues.
- Implement existing transportation and health policies (see Chapter 4) that promote more bicycling and walking on a daily basis.
- Establish greater Federal land management agency participation with AASHTO and TRB bike committees.

# **Design/Implementation**

- Tailor a program to meet the land unit's needs and opportunities such as making bicycles available for use by campground hosts or other employees.
- Make bicycles available to visitors through rental or sharing programs. Provide various styles of bicycles that may include hand cycles, tandem, tricycles and four wheeled pedal-cycles.
- Open roadways to bicycling and walking by limiting automobile access to more places, more frequently. While this option is not appropriate everywhere, places like Mackinac Island and Acadia NP's carriage roads demonstrate that access without automobiles in not only possible, it is desirable and popular with people of all ages and physical abilities.
- Use existing service roads for non-motorized travel.
- Promote lightly traveled roads to create connectivity for bicycling networks.
- Restripe existing roadways to allocate space for bicycles (e.g. implement complete streets and road diet concepts).
- Place bicycle racks in a visible location that is closer to building entrances and attractions than the closest motor vehicle parking space.
- Create a recognizable sign system guiding bicyclists through attractions.
- Design sustainable trail to protect resources and properly accommodate shared nonmotorized use.

- Incorporate bicyclist use into routine traffic data collection. Knowing how many bicyclists are present can help to measure the effectiveness of various programs over time and provide support for bicycle facility and program funding.
- Evaluate bicycling use and programs on an annual basis. Estimate how bicycling use changes over time and associated changes in items such as fuel use, air quality, traffic congestion and visitor experience.

### **Promotion**

- Establish a web page for bike-related resources, providing sufficient information for visitors to plan bike trips in advance of travel.
- Promote or organize events such as Bike-to-Work Day.
- Offer interpretive bicycle tours such as at the National Mall & Memorial Parks in Washington, D.C.
- Publish literature that supports bicycling as a travel mode (route maps, brochures, etc).
- Provide visitors with interpretive material to highlight not only the social and environmental benefits of bicycling, but also the opportunity for more intimate, meaningful, and satisfying experiences. Highlight the long history of alternative transportation in national parks, which included stagecoach tours, railroads, touring auto coaches and bicycling. (White, 2006)
- Provide incentives such as discounted entry fees or camp fees for bicyclists. Charging higher fees for automobile entry and parking could also shift more visitors to biking, walking and transit.
- Encourage children to bicycle to help reconnect children with nature and reduce childhood obesity. A few example programs include: USFS More Kids in the Woods— <a href="http://www.fs.fed.us/recreation/programs/woods/index.shtml">http://www.fs.fed.us/recreation/programs/woods/index.shtml</a>, ACA's Pedal Pioneers—
   <a href="http://www.adventurecycling.org/outreach/pedalpioneers.cfm">http://www.adventurecycling.org/outreach/pedalpioneers.cfm</a>, and Trips for Kids—
   <a href="http://www.tripsforkids.org/">http://www.tripsforkids.org/</a>.
- Ride a bike more often.

## Safety/Education

- Provide training to children and adults on bicycling safety and regulations for both roadways and trails. One popular program can be found at: <a href="http://www.bikeleague.org/programs/education/">http://www.bikeleague.org/programs/education/</a>.
- Make bicycle safety literature readily available to educate motorists and bicyclists about bicyclist safety and share the road concepts.
- Educate visitors on how to share trails with hikers, bicyclists, and equestrians by using signage and other program such as IMBA's National Mountain Bike Patrol and Rules of the Trail. For more information see <a href="http://www.imba.com/about/trail\_rules.html">http://www.imba.com/about/trail\_rules.html</a>.
- Ensure enforcement personnel, such as rangers, understand bicyclists' rights and responsibilities.

• Enforce speed limits and driving under the influence laws to improve safety for all roadway users, including bicyclists.

Bicycling continues to grow in popularity across the country as an important recreational activity and travel mode. There is no lack of knowledge about how to design bicycle facilities or the elements of successful bicycling programs, only a lack of commitment. There is significant support for bicycling from the public, advocacy groups, and numerous health and transportation agencies. Consider bicycles as an important tool to move people in a way that has a low impact to the environment, low cost, and offers significant benefits. Federal land managers have the opportunity to serve as a positive national presence and role model by mainstreaming bicycling on Federal lands.

Nothing compares to the simple pleasure of a bike ride. ~John F. Kennedy



Figure 34: Tobacco Root Mountains, Montana.

(Photo courtesy Kristin Drost.)