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1998 WYOMING STATEWIDE TRAILS INVENTORY: Final Report

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INTRODUCTION

Recreation trails are an important aspect of outdoor recreation in Wyoming. Recreation trails contribute to the State's economy through expenditures by visitors attracted by the various recreational opportunities trails provide. Recreation trails also contribute to the quality of life in Wyoming by providing recreational opportunities for residents.

In order to plan for future recreational needs in Wyoming, it is important to have comprehensive information for the trail systems that exist in the state. In 1997, the Wyoming Department of Commerce, Division of State Parks and Historic Sites contracted with the University of Wyoming, Department of Agricultural and Applied Economics to develop a statewide trail inventory for Wyoming. The goal of this project was to develop a database of trail information that can be used by government agencies, local entities, and recreation users for management purposes and trip planning. The State Trails Council and other interested groups should be able to use the inventory to provide for better resource management and to provide better information to the public. The inventory will also assist in the development of a Statewide Comprehensive Trails Plan.

This report provides a summary of the results of the trail inventory for federal, state and locally administered trails in Wyoming. Federal trails are primarily those administered by the Bureau of Land Management, the U.S. Forest Service, and the National Park Service in Wyoming. State trails are primarily those administered by the Wyoming Division of State Parks and Historical Sites. Local trails are primarily those administered by cities and counties in Wyoming.

PROCEDURES

This project was conducted in two phases with much of the methodology based on a similar study conducted in Montana by the University of Montana (Yuan, et al, 1994). The purpose of the first phase was to develop an appropriate methodology that could be used to complete a statewide trails inventory for Wyoming in phase two. In phase one, the methodology from the Montana study was tested by conducting a small scale inventory of all trails maintained by the Bureau of Land Management (BLM), the U.S. Forest Service's (USFS) Medicine Bow National Forest, and the City of Cheyenne. The second phase of the project utilized the methodology tested in phase one to complete the inventory of all trails in Wyoming.

A variety of techniques were employed to develop the trails inventory for Wyoming. Four data collection methods were used: 1) examining existing trail databases, 2) examining maps, 3) surveying agencies, and 4) interviewing officials from agencies. Federal and State agencies were personally interviewed to obtain information on the trails that they manage. Local entities were contacted by phone and then mailed data sheets if they maintained any trails. The data for each trail were recorded on a standard form developed for this study (see "Wyoming Trail Inventory Data Sheet" in the Appendix). The information from the data sheets was then entered in Lotus Approach computer database for analysis. This program is compatible with other computer database programs. A list of all the agencies and entities contacted appears in the Appendix.

Definition

A trail can be defined in a variety of ways. The definition of trails used for this study is the one commonly used by the USFS and in the Montana study conducted by the University of Montana (Yuan et al, 1994). Under this definition a trail is defined as...“a regularly maintained transportation and/or recreation pathway typically used by hikers, cross-country skiers, equestrians, bicyclists, and/or motor vehicles less than 50 inches wide.” This definition excludes the use of vehicles such as cars and trucks, as they are greater than 50 inches wide. The trail should be...“purposefully planned and constructed for this purpose, rather than, for example, a game trail or a fisherman’s path along the edge of a stream.” For this study, only trails with public access were included in the inventory.

During the process of collecting information on trails under the above definition, limited information on river trails and 4-wheel drive trails in Wyoming was also collected as a part of this study. This information is presented at the end of this report.

Variables Considered

The Division of State Parks and Historic Sites, together with the University of Wyoming, determined what trail information to include in the trails inventory. The following variables were determined to be important:

- Agency Administering the Trail
- Trail Name
- Trail Number
- Location of Trail Head (Township, Range, Section)
- Nearest Town, County, State

- Agency Map Showing Trail
- USGS Maps (Quadrangle Names)
- Trail Starts At (Landmark)
- Trail Ends At (Landmark)
- If Part of a Trail System, Name System, Connecting Trails
- Trail Length
- Elevation Range
- Trail Setting
- Season of Allowed Use
- Accepted Uses
- Level of Management
- Miscellaneous Information Concerning the Trail

The study attempted to obtain complete information for each trail. However, some of the variables were not applicable or available for certain trails. For example, information on elevation was not available for many trails. The data were recorded on a standardized data sheet (see Appendix). One data sheet was used for each trail or trail system.

Study Limitations

The study attempted to obtain information on all the trails managed by each agency or entity. However there are certain limitations that should be kept in mind when examining the results:

- While attempts were made to conduct a complete census of all trail providers, some providers may not have been included. Additionally, some providers may have added

or deleted one or more trails since the information was collected. Maintaining a comprehensive trail inventory is an on-going process.

- Trails that were not administered by an agency, were not purposefully planned and constructed as trails, and/or where public access is not available or encouraged were not included in the inventory.
- This trail inventory is limited to those trails reported by each agency or entity. Occasionally agency managers decided to exclude a particular trail or trails. The study did not use other means to gain information about a trail that an agency intentionally excluded.
- Numerous primary and secondary data sources were used to complete this inventory. The accuracy of these data sources is in many cases unknown.

INVENTORY RESULTS

The purpose of this report is to provide a summary of the information contained in the trail inventory. It does not attempt to provide specific information on individual trails in Wyoming. However, the information for individual trails can be obtained from the database, itself. With the database it is also possible to summarize trail information as needed by geographic region of the state, agency, physical characteristic, or allowed use.

Number and Miles of Trails by Agency

There were a total of 1,361 trails reported in Wyoming by the federal, state, and local agencies for this study (Table 1). The majority of these trails, 1,000 (73.5 percent), were administered by the USFS. The NPS had the next largest number of trails with 261 (19.2 percent). Following the NPS were Local Entities with 41 trails (3.0 percent), the BLM with 32 trails (2.4 percent), and the State of Wyoming with 27 trails (2.0 percent).

In terms of miles of trails, the USFS was the largest administer of trails with 6,186 miles (75.7 percent). The NPS administered the next largest miles of trail with 1,390 miles (17.0 percent). Following the NPS was the BLM with 457 miles (5.6 percent), Local Entities with 101 miles (1.2 percent) and the State of Wyoming with 41 miles (0.5 percent).

Table 1. Number and Miles of Trails by Agency

<u>Agency</u>	<u>Number of Trails</u>	<u>Percent</u>	<u>Miles of Trails</u>	<u>Percent</u>
U.S. Forest Service	1,000	73.5%	6,185.73	75.7%
National Park Service	261	19.2%	1,390.27	17.0%
Bureau of Land Management	32	2.4%	456.75	5.6%
State of Wyoming	27	2.0%	41.51	0.5%
Local Entities	<u>41</u>	<u>3.0%</u>	<u>101.42</u>	<u>1.2%</u>
Total	1,361	100.0%	8,175.68	100.0%

Length of Trails

The following information represents trail length for individual trails. In many cases, a particular trail may connect with other trails forming a larger trail system. While the database includes information on connecting trails, it was not feasible to include combined trail lengths for this report. Moreover, the responsible administrative agency was not able to provide trail lengths for some trails. Trail lengths were not available for 19 trails. These trails currently appear in the database as zero miles.

Trail segments in Wyoming ranged in length from less than one mile to 128 miles. Most of the trails (43.2 percent) were 3.0 miles or less in length (Table 2). There were 288 trails that were 3.1 to 5.0 miles in length (21.2 percent), 291 trails that were 5.1

to 10.0 miles in length (21.4 percent), and 194 trails that were more than 10.0 miles in length (14.3 percent).

While most of the trails in Wyoming were 3.0 miles or less in length, most of the miles of trails in Wyoming were in trails that were more than 10.0 miles in length (48.6 percent). There were 2,114 miles of trails for trails 5.1 miles to 10.0 miles in length (25.9 percent), 1,198 miles of trails for trails 3.1 miles to 5.0 miles in length (14.7 percent), and 891 miles of trails for trails 3.0 miles or less in length (10.9 percent).

The average length of a trail in Wyoming was 6.0 miles. The average trail length varied by administrative agency, ranging from 14.3 miles per trail for the BLM, to 6.2 miles per trail for the USFS, to 5.3 miles for the NPS, to 2.5 miles for Local Entities, to 1.5 miles for the State of Wyoming.

Table 2. Length of Trails

<u>Length Category</u>	<u>Number of Trails</u>	<u>Percent</u>	<u>Miles of Trails</u>	<u>Percent</u>
3.0 Miles of Less	588	43.2%	890.88	10.9%
3.1 to 5.0 Miles	288	21.2%	1,198.40	14.7%
5.1 Miles to 10.0 Miles	291	21.4%	2,114.25	25.9%
10.1 Miles or Longer	<u>194</u>	<u>14.3%</u>	<u>3,972.15</u>	<u>48.6%</u>
Total	1,361	100.0%	8,175.68	100.0%

Trail Setting

The administrative agencies were asked to indicate the setting of the surrounding area that the trail passes through. Trail setting included four possible categories: 1) Urban (cities and towns), 2) Rural (areas surrounding cities and towns), 3) Natural (roaded areas), or 4) Primitive (roadless areas). Some trails may have multiple settings

since they pass through more than one type of area. For example, a USFS trail may begin in a natural area and then go into a primitive area.

The majority of trails in Wyoming (62.7 percent) were located in natural settings (Table 3). There were 445 trails located in primitive settings (32.8 percent), with 32 trails located in rural settings (2.4 percent), and 29 trails located in urban settings (2.1 percent).

In terms of miles of trails in Wyoming, the majority was also in a natural setting (63.4 percent). There were 2,644 miles of trail in a primitive setting (31.6 percent), with 377 miles of trails in a rural setting (4.5 percent), and 46 miles of trails in an urban setting (0.5 percent).

Table 3. Trail Setting

<u>Setting</u>	<u>Number of Trails</u>	<u>Percent</u>	<u>Miles of Trail</u>	<u>Percent</u>
Urban	29	2.1%	45.92	0.5%
Rural	32	2.4%	376.75	4.5%
Natural	849	62.7%	5,309.36	63.4%
Primitive	445	32.8%	2,644.55	31.6%

Season of Use

While peak use of most trails may occur during one or two seasons of the year, most trails in Wyoming were available for recreational use throughout most of the year. In terms of numbers of trails, well over 80 percent of the trails were open for recreation use during the summer, fall, and winter months (Table 4). The winter season had the most trails available for recreation use with 1,199 trails (88.1 percent). In the summer 1,168 trails were open for recreation use (85.8 percent). During the fall, 1,166 trails were available for recreational use (85.7 percent). In the spring, 1,040 trails were available for recreational use (76.4 percent). The lower number of trails open during the spring season

was probably the result of closures while trails dry out from the melting of the winter snowpack.

In terms of miles of trails, over 70 percent of the trails in Wyoming were open for recreation use during any one season. The winter season had the most miles of trails available for use with 7,308 miles (89.4 percent). During the summer, 5,962 miles of trails were available for recreation use (72.9 percent). In the fall, 5,953 miles of trails were available for recreation use (72.8 percent). During the spring, 5,805 miles of trails were available for recreation use (71.0 percent). The increased miles of trails during the winter season were probably associated with the opening of longer snowmobile trails during the winter months.

Table 4. Season of Allowed Use

<u>Season</u>	<u>Number of Trails</u>	<u>Percent*</u>	<u>Miles of Trails</u>	<u>Percent*</u>
Summer	1,168	85.8%	5,961.98	72.9%
Fall	1,166	85.7%	5,952.78	72.8%
Winter	1,199	88.1%	7,307.84	89.4%
Spring	1,040	76.4%	5,805.01	71.0%

* Sums to more than 100 percent due to multiple responses

Allowed Uses

The following information summarizes the allowed recreational uses indicated by the administrative agency for trails in Wyoming. In most cases an individual trail had more than one allowed use. Although a specific use may be allowed on a trail, it does not

mean that the trail is necessarily used for this activity. In some cases, although the trail is not restricted for a use, the trail may not be particularly conducive to the activity.

As shown in Table 5, the most common allowed uses for Wyoming trails were hiking with 1,096 trails (80.5 percent), horse back riding with 1,016 trails (74.7 percent), backbacking with 994 trails (73.0 percent), and cross-country skiing (ungroomed) with 935 trails (68.7 percent). The least common allowed uses for Wyoming trails were “other” uses with 17 trails (1.2 percent), cross-country skiing (groomed) with 25 trails (1.8 percent), handicap access with 31 trails (2.3 percent), and biking (paved) with 36 trails (2.6 percent). “Other” uses included a variety of recreational activities, for example rollerblading.

In terms of miles of trails, the most common allowed uses for Wyoming trails were hiking with 5,884 miles (72.0 percent), horse back riding with 5,732 miles (70.1 percent), and backbacking with 5,593 miles (68.4 percent). The least common allowed uses, in terms of miles of trails were “other” uses with 31 miles (0.4 percent), handicap accessible with 49 miles of trails (0.6 percent), biking (paved) with 60 miles of trails (0.7 percent) and cross-country skiing (groomed) with 144 miles (1.8 percent).

Tables 5. Allowed Uses

<u>Use</u>	<u>Number of Trails</u>	<u>Percent*</u>	<u>Miles of Trails</u>	<u>Percent*</u>
Hiking	1,096	80.5%	5,884.18	72.0%
Horse	1,016	74.7%	5,731.92	70.1%
Backbacking	994	73.0%	5,593.47	68.4%
XC Ski - Ungroomed	935	68.7%	4,947.25	60.5%
Running	888	65.2%	4,630.26	56.6%
Hunting Access	811	59.6%	4,161.87	50.9%
Walking	766	56.3%	4,141.18	50.7%

Bike - Unimproved	580	42.6%	3,257.37	39.8%
Snowmobile - Ungroomed	387	28.4%	2,309.75	28.3%
Snowmobile – Groomed	108	7.9%	1,532.05	18.7%
Motorbike	153	11.2%	1,052.32	12.9%
ATV	140	10.3%	1,001.02	12.2%
XC Ski – Groomed	25	1.8%	143.80	1.8%
Bike - Paved	36	2.6%	59.99	0.7%
Handicap Accessible	31	2.3%	48.88	0.6%
Other	17	1.2%	30.98	0.4%

* Sums to more than 100 percent due to multiple responses

Level of Management

The level of management for Wyoming trails was measured in terms of the frequency of patrol or maintenance. The management level for most trails in Wyoming was less than once a week (Table 6). The most common level of management was “one to six times per year” for 475 trails (34.9 percent) and “seven or more times per year” for 527 trails (38.7 percent). However, 266 trails (19.5 percent) were managed “3 or more times per month.” Only 93 trails (6.8 percent) were managed “4 or more times per week.”

In terms of miles of trails, the most common level of management was “one to six times per year with 2,465 miles (30.2 percent) and “seven or more times per year” with 2,930 miles (35.8 percent). However, 2,326 miles of trails (28.4 percent) were managed “three or more times per month. Only 455 miles of trails (5.6 percent) are managed “four or more times per week.

Table 6. Level of Management

<u>Frequency</u>	<u>Number of Trails</u>	<u>Percent</u>	<u>Miles of Trails</u>	<u>Percent</u>
1-6 Times Per Year	475	34.9%	2,465.10	30.2%
7 or More Times Per Year	527	38.7%	2,929.77	35.8%

3 or More Times Per Month	266	19.5%	2,325.78	28.4%
4 or More Times Per Week	<u>93</u>	<u>6.8%</u>	<u>455.03</u>	<u>5.6%</u>
Total	1,361	100.0%	8,175.68	100.0%

RIVER TRAILS

In addition to land trails, federal, state, and local agencies were also asked to supply information on river trails that they administer using a separate inventory data sheet (see Appendix). In addition to managed access points, some agencies provided information on white water ratings, miles to next access, and other data that would be useful to users. Unfortunately the primary provider, the Wyoming Game and Fish Department, did not have this information available. A separate database for river trails has been developed for the project. Only maintained access points were included in the database. Other sites that may be used as access points, but not specifically maintained as such, were not included.

Number of River Access Points by Agency

There were a total of 62 maintained river access points reported by federal, state, and local agencies for this study (Table 7). The Wyoming Game and Fish Department maintained the largest number of river access points with 26 sites (41.9 percent). The BLM had the next largest number of river access points with 23 sites (37.1 percent). Following the BLM was the USFS with 5 sites (8.1 percent), the NPS with 4 sites (6.8 percent), and Local Government with 4 sites (6.8 percent).

Table 7. River Access Points by Agency

<u>Agency</u>	<u>Number</u>	<u>Percent</u>
<u>State of Wyoming</u>		
Wyoming Game & Fish Department	26	41.9%
<u>Bureau of Land Management</u>		
Lander Field Office	5	
Kemmerer Field Office	4	
Cody Field Office	11	
Rawlins Field Office	<u>3</u>	
Bureau of Land Management Total	23	37.1%
<u>U.S. Forest Service</u>		
Medicine Bow N.F.	2	
Bridger-Teton N.F.	<u>3</u>	
U.S. Forest Service Total	5	8.1%
<u>National Park Service</u>		
Big Horn Canyon NRA	1	
Grand Teton National Park	<u>3</u>	
National Park Service Total	4	6.5%
<u>Local Government</u>		
Green River Parks & Recreation	2	
Cody Parks Department	<u>2</u>	
Local Government Total	4	6.5%
Wyoming Total	62	100.0%

River Access Points by River

The following information summarizes maintained river access points in Wyoming by river (Table 8). In some cases one river may connect with another, but it is not clear whether it is possible to boat continuously between access points on one river to access points on another river.

Table 8. River Access Point by River

<u>River</u>	<u>Number</u>	<u>Percent</u>
<u>Big Horn River</u>		
National Park Service	1	
Bureau of Land Management	4	
Wyoming Game & Fish	<u>2</u>	
Total Big Horn River	7	11.3%
<u>Clarks Fork Yellowstone River</u>		
Bureau of Land Management	3	4.8%
<u>Encampment River</u>		
Bureau of Land Management	1	
U.S. Forest Service	<u>1</u>	
Total Encampment River	2	3.2%
<u>Green River</u>		
Bureau of Land Management	4	
Green River Parks & Rec	2	
Wyoming Game & Fish	<u>1</u>	
Total Green River	7	11.3%
<u>New Fork River</u>		
Wyoming Game & Fish	1	1.6%
<u>North Fork Shoshone River</u>		
Bureau of Land Management	2	3.2%
<u>North Platte River</u>		
Bureau of Land Management	2	
U.S. Forest Service	1	
Wyoming Game & Fish	<u>19</u>	
Total North Platte River	22	35.5%
<u>Salt River</u>		
Wyoming Game & Fish	2	3.2%

Shoshone River

Cody Parks Department	2	
Wyoming Game & Fish	<u>1</u>	
Total Shoshone River	3	4.8%

Snake River

National Park Service	3	
U.S. Forest Service	<u>3</u>	
Total Snake River	6	9.7%

South Fork Shoshone River

Bureau of Land Management	2	3.2%
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Sweetwater River

Bureau of Land Management	5	8.1%
Wyoming Total	62	100.0%

4-WHEEL DRIVE TRAILS

As a part of this project an attempt was made to also collect information on 4-wheel drive trails from Federal, State, and Local Government agencies. Unfortunately, this effort was largely unsuccessful. The primary provider of 4-wheel drive recreation in Wyoming seems to be the BLM. However, the agency does not inventory or manage these trails or roads, although they may be included on agency maps. The USFS has a significant number of high clearance roads and has inventoried them. However, most National Forests in Wyoming are currently involved in revising their travel management plans and did not feel that they could release this information until the travel management plans are completed. The NPS does not support four-wheel drive trails within park or other administrative unit boundaries. No State or Local Government agency indicated

that they administered any 4-wheel drive trails. Due to the lack of information available, no database was created for 4-wheel drive trails.

SUMMARY AND CONCLUSION

The Wyoming Trails Inventory indicates that Wyoming has an extensive trail system that can provide many benefits to the residents of the state and its economy. Moreover, this inventory illustrates the abundance of recreational opportunities that are available through the state's trail system. Managing these trails effectively will be increasingly important to the state as recreational demands increase. This inventory should be an important tool for management and promotion of the trail systems in Wyoming.

REFERENCE

Yuan, Susan, Michael Yuan, and Jerry Covault. 1994 MONTANA STATEWIDE TRAIL INVENTORY. Research Report 37, Institute for Tourism and Research, The University of Montana, October 1994.

APPENDIX

Appendix Table 1. Agencies Contacted.

Federal Agencies

Bureau of Land Management

- Wyoming State Office

Fish and Wildlife Service

- National Elk Refuge
- Seedskadee National Wildlife Refuge

National Park Service

- Big Horn Canyon National Recreation Area
- Devils Tower National Monument
- Flaming Gorge National Recreation Area
- Fort Laramie National Historic Site
- Fossil Buttes National Monument
- Grand Teton National Park
- John D. Rockefeller Jr. Memorial Parkway
- Yellowstone National Park

United State Forest Service

- Bighorn National Forest
- Black Hills National Forest
- Bridger-Teton National Forest
- Caribou National Forest
- Medicine Bow National Forest
- Shoshone National Forest
- Targhee National Forest
- Wasatch-Cache National Forest

State of Wyoming

- Wyoming Department of Transportation
- Wyoming Division of Forestry
- Wyoming Game and Fish Department
- Wyoming Office of State Lands and Investments
- Wyoming Division of State Parks and Historic Sites
- University of Wyoming

Local Entities

- Campbell County Park and Recreation
- Cheyenne Parks and Recreation
- City of Afton
- City of Casper
- City of Cody
- City of Gillette
- City of Green River Parks and Recreation
- City of Kemmerer
- City of Lander
- City of Laramie
- City of Powell
- City of Rawlins
- City of Riverton
- City of Rock Springs
- City of Worland
- Evanston Parks and Recreation District
- Natrona County Parks
- Niobrara County
- Platte County
- Sheridan Recreation District
- Sweetwater County
- Teton County/Jackson Parks & Recreation
- Teton County Roads and Levy
- Town of Burns
- Town of Dubois
- Town of Glenrock
- Town of Granger
- Town of Greybull
- Town of Gurnsey
- Town of Hanna
- Town of Hulett
- Town of Labarge
- Town of Lingle
- Town of Pine Bluffs
- Town of Rolling Hills
- Town of Shoshoni
- Town of Sinclair
- Town of Sundance
- Town of Wheatland
- Trail Makers
- Wind River Indian Reservation