

Topic 4 – Recreation/Scenery Management

Recreation

Introduction

The following discussion provides information regarding recreation in the WCNF. The initial discussion concerns the currently existing condition (or affected environment) of the WCNF as it relates to recreation management. It provides descriptions of management concerns regarding recreation; factors considered to predict how recreation may be affected by the various alternatives; and existing laws, regulations, and policies by which recreation is managed. Following these discussions is a section describing how the various alternatives could affect recreation management. It describes general effects regarding each alternative, then more specific effects from potential management actions and the possible consequences of those actions.

Other resource areas and concerns also affect recreation management. Other topics closely related to Recreation Management include Topic 3-Roads and Access Management and Topic 5 Roadless Areas/Wilderness.

Recreation management for the USDA Forest Service involves a majority of natural and natural appearing settings that can assist in “quality recreation opportunities within the sustainable capabilities of National Forest ecosystems. We will emphasize natural settings and address the diverse interests of all Americans...” (USDA Forest Service. 2000a, pp.1). Managing recreation use within the sustainable capabilities of the land will be no easy task as “recreation is the fastest growing use on the national forests and grasslands” (USDA Forest Service 2000a, pp.2). This is true on the Wasatch-Cache National Forest (WCNF) where providing quality natural and natural appearing settings has long been a focus of management to promote a quality recreation experience.

The WCNF is a worldwide attraction for visitors seeking a variety of recreation settings. Recreation is currently the predominant use in the forest. Because of the forest’s adjacent relationship to urban communities it is highly influenced by the rapid population increases occurring in the area. As recreation use has increased, so have conflicts between various user groups that are seeking the same areas for their recreation experience. This increased demand for specific recreation settings has created concerns for managers due to the deterioration of resources and facilities from overuse or conflicts among visitors with incompatible recreation activities or desired experiences such as motorized versus non-motorized.

In 1985 and 1995 the WCNF ranked first in total recreation visitor days (RVD’s) in the National Forest system and consistently ranks in the top five forests for overall recreation use numbers. Factors affecting recreation management on the WCNF relevant to Forest Plan development include:

- rapidly growing and diversifying urban populations adjacent to the Forest and the competition with rural historic uses in the less urban parts of the forest resulting in conflicting desired uses and experiences
- education of the public to understand the effects of their activities on National Forest System lands and the need for them to actively participate in the management of these lands
- increasing undeveloped recreation demand, both summer and winter, where undeveloped sites may not provide adequate resource protection
- development of new technologies which change or increase visitors' ability to access and use various parts of the forest
- need for integrating recreation management with other resource values
- lack of awareness and understanding among recreationists of the potential for undesirable resource and social impacts from their behavior while using the Forest
- budget allocations which are flat or decreasing in spite of ageing facilities and increasing demands

Laws, Policy, and Direction

People have always enjoyed relatively free access and opportunities on federal public lands, although outdoor recreation as we now know it was not a priority consideration when the country began to set aside national forests. Laws from the late 1800's and early twentieth century focused on the establishment of national forests; on extractive uses including water, minerals, timber resources and livestock grazing; and on a variety of property and administrative management needs. Recreation use was present, but it was an unstated ancillary benefit.

Since World War II demand in America to use national parks, national forests, and other public lands has grown continuously, and legislation from the 1960's through the present day has more specific language on outdoor recreation on federal lands.

Multiple-Use Sustained-Yield Act (1960) – adds outdoor recreation as a use for which national forests were established.

Wilderness Act of 1964 and the Utah Wilderness Act of 1984 – provides for establishing Wilderness for environmental preservation as well as recreation.

Land and Water Conservation Act (1964) – provides continuing access to national forests and funding for recreation and defines admission and recreation fee collection guidelines.

Architectural Barriers Act (1968) – establishes that buildings, facilities, and vehicles meet standards suitable for persons with disabilities.

National Trails System Act (1968) – establishes that trails be provided to meet increasing recreation needs.

Wild and Scenic Rivers Act (1968) – establishes Wild and Scenic Rivers system, designates some rivers for the system, and defines appropriate levels of use and recreation within the system.

Executive Order 11644 (1972) and 11899 (1977) Off-Road Vehicles on Public Lands – provides for closing areas to off-road vehicles where resources would, or are, being negatively impacted. This is also covered under 36 CFR 295.

Forest and Rangeland Renewable Resources Planning Act (1974) – includes recreation among resources for which forest planning is required.

Americans with Disabilities Act (1990) - provides for standards so that disabled persons will not be discriminated against and have opportunities for access and use of facilities.

Over the past decade additional federal emphasis has been placed on outdoor recreation as a primary purpose for national forest use. Recently, the Forest Service has developed The Recreation Agenda, (USDA Forest Service. 2000a). This document clarifies agency policy and defines *national* principles, processes, and priorities in providing quality recreation opportunities. Recreation emphases from 100 years ago are being redefined.

Affected Environment

Forest-wide Recreation

“The Forest Service has a unique ‘niche’ of nature based recreation to offer, including undeveloped settings, built environments reinforcing the natural character, and wildland settings that complement enjoyment of these special places” (USDA Forest Service. 2000a, pp.2).

The WCNF is unique in several recreation aspects. Recognized as an urban forest, the WCNF is the backyard to nearly 1.7 million people living in close proximity to the forest. These people bring with them a wide range of recreational interests. People can drive from 15-30 minutes from their home and be at a ski area, developed recreation facility, trailhead, or Wilderness area. This part of the forest is most commonly visited for day use or short trips. Generally, these areas are more developed and have more recreation visitor days (RVD's) than other parts of the forest.

The backsides of the Wasatch Front, including areas around Kamas, Logan, the north slope of the Uintas, and the Stansbury Mountains are generally less developed and provide fewer RVD's. Visits are of longer duration and rural values influence the desired opportunities.

Finally, during winter, the WCNF is known for some of the best snow and skiing conditions available. Utah is nationally known for its quality snow and skiing terrain. Out of the 14 downhill ski resorts in the state, the WCNF administers five special use permits for operations based on WCNF lands.

The backsides of the WCNF offer less developed areas for winter snow-play, snowmobile touring and hi-marking, groomed ski trails, and backcountry winter yurts used by the more hardy winter visitors.

Recreation managers generally concern themselves with managing settings and with determining what types of activities may be appropriate within each setting. To match the diversity of recreation interests with appropriate opportunities, the WCNF offers a variety of recreation settings. These settings are differentiated by the amount of development and other attributes incorporated into a recreation-planning tool called the Recreation Opportunity Spectrum (ROS). The Forest Service uses this mapping and classification system to distinguish between different types of recreation settings in the Forest. The ROS system provides a way to help managers and recreation users understand what recreation experiences to expect and where these are available across the Forest. ROS can help people visualize the variety of natural outdoor settings, the types of activities that can be pursued, and how many other people might be found in an area of the Forest.

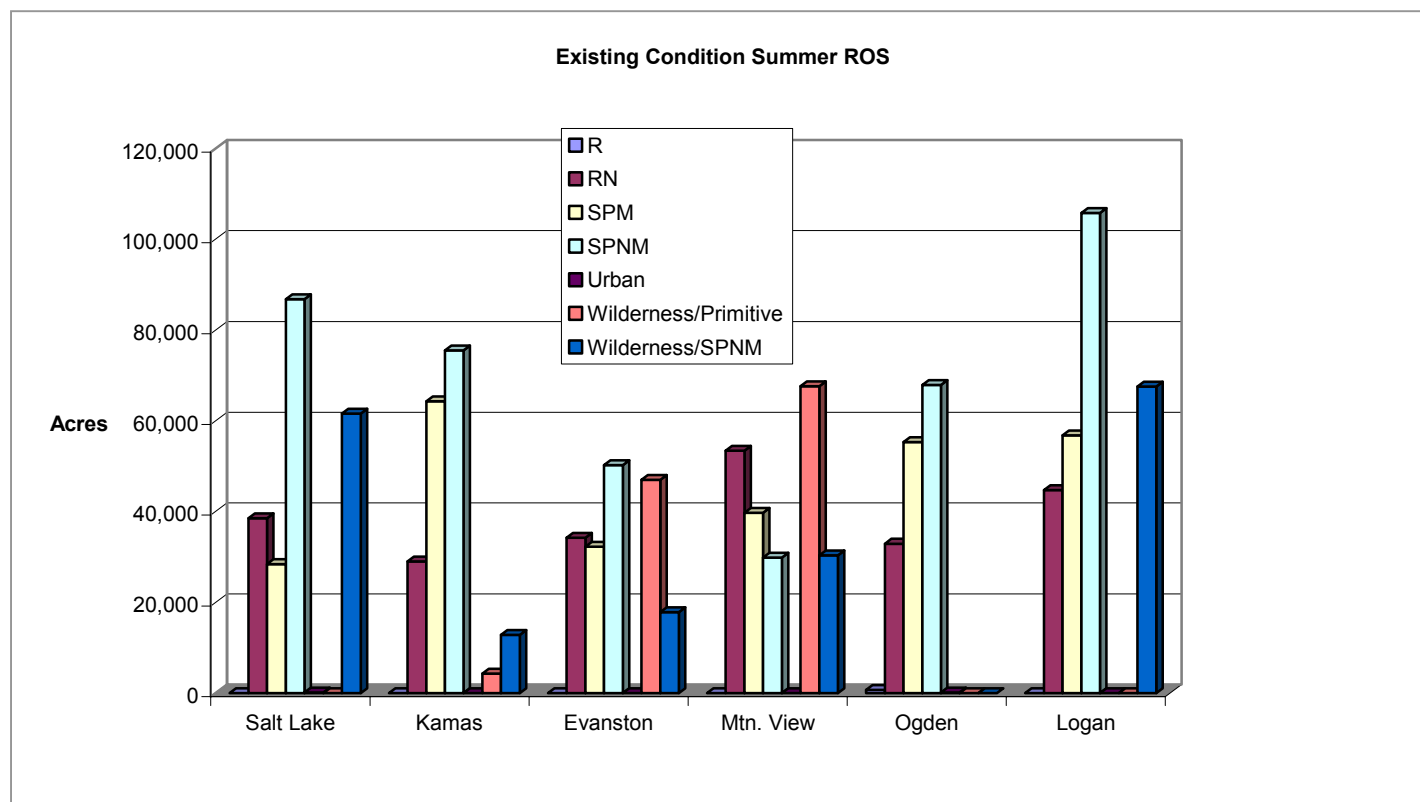
For WCNF planning, the Forest was divided into six recreation opportunity categories and one sub-category that are differentiated by the physical setting (remoteness and human modification), social setting (the amount of social interaction between users) and managerial setting (the amount of managerial presence and information). See FEIS Appendix D-2 for complete descriptions of settings for the ROS classes. The ROS classes were conceptualized to range from a primitive setting with little development or site modification, low visitor interaction and minimum management presence (such as the interior of the High Uintas Wilderness), to an urban setting where visitors may see an unlimited number of people in a highly developed landscape with the highest level of management presence (e.g. Pineview Reservoir area). Table REC-1A and Figure REC-1 display the existing condition (as inventoried) Recreation Opportunity Spectrum acres, by Ranger District, for summer recreation opportunities in the WCNF.

Table REC-1a. Existing Condition Summer ROS Acres by District

ROS Category	Summer ROS Existing Condition Acres by Ranger District						
	Salt Lake	Kamas	Evanston	Mtn. View	Ogden	Logan	W-C Total
Rural	0	0	0	0	700	0	700
Roaded Natural	38,500	29,000	34,200	53,400	32,900	44,700	232,700
SPM	28,400	64,300	32,200	39,700	55,300	56,800	276,700
SPNM	86,800	75,500	50,200	29,800	67,900	105,800	416,000
Urban	100	0	0	0	100	0	200
Wilderness/Primitive	0	4,300	47,000	67,600	0	0	118,900
Wilderness/SPNM	61,600	12,800	17,800	30,300	0	67,500	190,000

SPM: Semi-Primitive
Motorized
SPNM: Semi-Primitive
Non-Motorized

Figure REC-1. Relative Acres Inventoried Existing Condition ROS by District



ROS summer existing condition was mapped separately from winter recreation existing condition. Both ROS summer and winter recreation existing condition is derived from current District Travel Management Maps. A comparison of Tables REC-1A Existing Condition and REC-1B 1985 Forest Plan shows that since 1985, the Forest Plan ROS map for both summer and winter has not been updated to show changes in management resulting from Travel Planning. The inventoried existing condition is used as a base line for comparing Alternatives other than Alternative 4 which represents direction of the 1985 Plan. For comparison of Alternatives and how they might affect today's recreation opportunities, the existing condition is more meaningful than Alternative 4. The Alternative 4 (1985 Plan) ROS summer classes reflect higher levels of maintenance on roads than what is currently being managed for. However, available budgets have not matched 1985 projections and subsequent maintenance and development was less than anticipated creating the current existing condition. Alternative 4 represents the 1985 plan ROS map for desired future condition showing a possible increase in budgets and an increased level of maintenance for roads neither of which have happened to the degree anticipated.

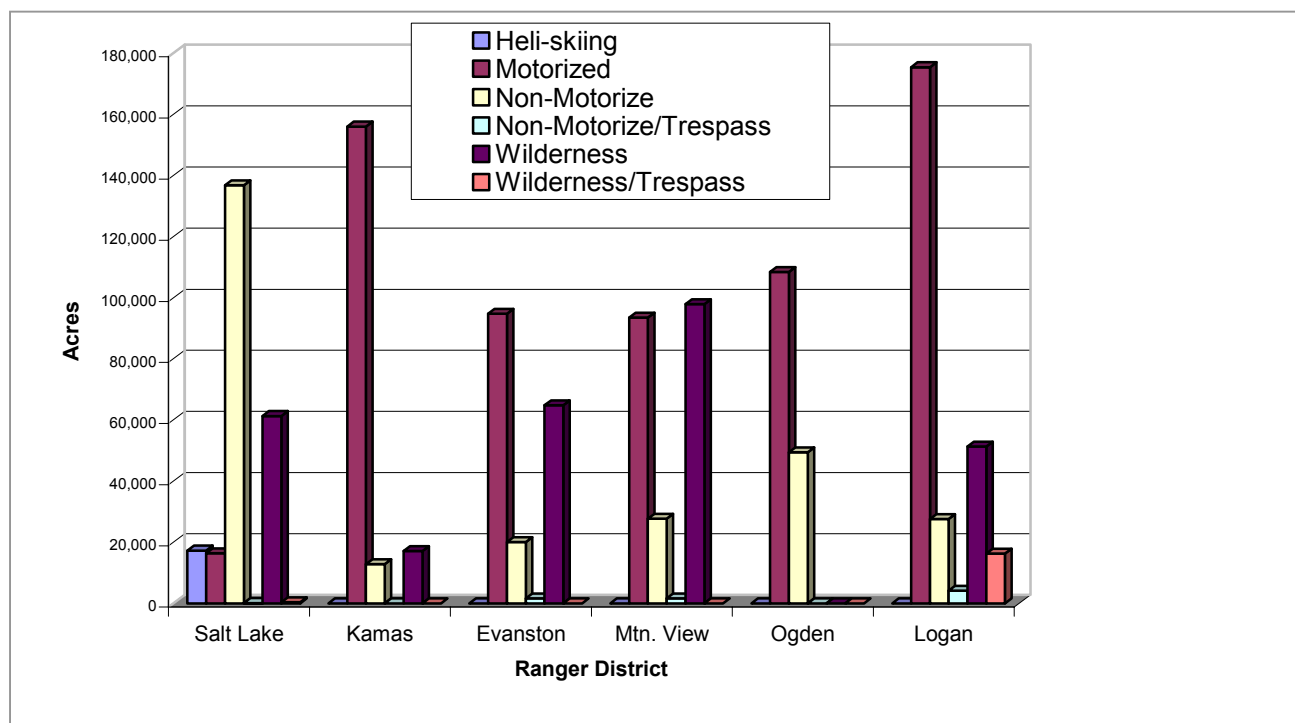
Table REC-1b. Relative Acres in 1985 Forest Plan ROS by District

ROS Category	Summer ROS 1985 Plan Acres by Ranger District						
	Salt Lake	Kamas	Evanston	Mtn. View	Ogden	Logan	W-C Total
R	6,400	500	0	0	5,300	1,500	13,700
RN	25,400	109,600	93,300	122,700	59,100	135,300	545,400
SPM	34,100	2,400	0	0	24,300	24,700	85,500
SPNM	83,200	56,400	23,100	200	59,600	19,300	241,800
Urban	0	0	0	0	0	0	0
Wilderness/Primitive	61,500	17,100	64,800	98,000	0	66,100	307,500
Wilderness/SPNM	0	0	0	0	0	0	0

For winter recreation, budget had little to do with changes in management. For actual motorized winter access in 1985, technology was the limiting factor. There are numerous areas on the Forest that are shown as open to winter motorized recreation on 1985 maps but that were not accessed by motorized users due to the steepness of slope, snow conditions, and vegetation densities. Since 1985, winter motorized access has changed significantly because of technological enhancements. Today few areas on the Forest are not accessible by winter-motorized users. Again, the 1985 Maps were not kept up-to-date as changes were made to winter motorized recreation through Travel Planning. Tables REC-2a and REC-2b show the comparison of Existing Condition Winter Recreation (REC-2a) and 1985 Winter Recreation (REC-2b). Note that we have included an inventory of areas both in and outside of designated Wilderness where motorized use is occurring even though the areas are closed to motorized use. These are labeled “w/Trespass” in Table REC-2a.

Table REC-2a. Existing Condition Acres of Winter Recreation by District

Winter Recreation Opportunities	Existing Condition Acres of Winter Recreation by Ranger District						
	Salt Lake	Kamas	Evanston	Mtn. View	Ogden	Logan	W-C Total
Heli-skiing	17,300	0	0	0	0	0	17,300
Motorized	8,500	154,100	94,800	93,500	108,400	175,400	644,500
Non-Motorized	144,800	14,700	20,100	27,700	49,400	27,600	274,400
Non-Motorized w/Trespass	100	0	1,600	1,600	0	4,100	7,300
Wilderness	61,300	17,100	64,800	97,900	0	51,300	292,400
Wilderness w/Trespass	400	0	0	0	0	16,300	16,700

Figure REC-2a. Relative Acres of Existing Condition Winter Recreation Opportunities by District**Table REC-2b. Acres from 1985 Forest Plan of Winter Recreation by District**

Winter Recreation Opportunities	1985 Forest Plan Acres of Winter Recreation by Ranger District						
	Salt Lake	Kamas	Evanston	Mtn. View	Ogden	Logan	W-C Total
Heli-skiing	17,300	0	0	0	0	0	17,300
Motorized	65,900	168,600	95,100	122,700	103,800	167,000	723,100
Non-Motorized	83,200	200	21,400	200	49,300	13,900	168,200
Wilderness	61,500	17,100	64,800	98,000	0	66,100	307,500

Types and Levels of Recreation Use

While the different settings classified above provide the basic opportunities for recreation experiences, it is important for recreation managers to recognize what activities visitors are coming to the Forest to enjoy and to understand any trends in user demand. The Forest Service Recreation Information Management (RIM) reports display information on the types and amount of recreation activity that takes place on the Forest. These reports contain estimates of the number of Recreation Visitor Days (RVD = number of people on WCNF for a 12 hour period of time) for selected activities. These reports were updated yearly, until 1997, by looking at the percent of change based on fee payments, highway traffic counts, and field manager estimates of the changes in use.

Between 1984 and 1997, WCNF RIM reports indicate that use on the forest increased by nearly 1 million visitor days. Although RIM reports do not display exact numbers of visitors, they are

useful to show trends in use patterns over time. Table REC-3 ranks the top ten selected activity categories for the WCNF based on 1996 RIM numbers and shows how these activities ranked within the Intermountain Region (R4).

While not in the top ten use categories some activities and trends are of additional management concern. Mountain biking showed no RVD's in 1984 and over 95,000 in 1997. Off highway vehicles showed 100 RVD's in 1984 and 10,973 RVD's in 1997. There is a dramatic trend toward increased use of ATV's and snowmobiles. The number of snowmobiles and ATV's registered in Utah has climbed from about 26,000 in 1980 to about 111,000 in 2000 (Thompson, H. 2001 2001). There is a trend toward increasing numbers of ATV user created trails and ATV operation on roads with mixed traffic. Growth in these activities is an important consideration for managers as well as visitors.

Forests nationwide are developing new databases to help recreation managers provide consistent information to users, Congress, and agency decision makers. The National Recreation Business Management System (Meaningful Measures) is being developed to help improve management effectiveness by establishing quality standards, estimating costs, and prioritizing workloads. Information for this database is still being input and analyzed. Eventually this system will provide the most consistent data available.

Table REC-3. Ranking of the Top Ten Forest Activities by 1996 Reported RVD's and How That Activity Ranks in the Intermountain Region (R4)

Activity^	Regional Ranking
1. Auto Travel	2
2. Camping*	1
3. Downhill Skiing	8
4. Hiking/Walking*	5
5. Viewing Scenery*	4
6. Picnicking	9
7. Hunting*	7
8. Fishing*	6
9. Recreation Cabin Use	14
10. SnowPlay*	3

*Similar categories were combined to create these categories.

^These uses account for 84 percent of total reported 1996 RVD's.

Demand

As a primary provider of outdoor recreation settings for Northern Utah, the WCNF is feeling a tug-of-war between various recreation user groups and their desires and demands of the forest. In general, there is a continuing and growing demand for a diversity of recreation opportunities on public lands. As the population continues to grow (predicted to be an increase of 1,000,000 by 2020, (EU, 2002), it is expected that the demand for outdoor recreation will increase at a similar or greater rate (USDA Forest Service, 1995).

Managers do know that undeveloped recreation use is increasing. According to Cole (1996) in an analysis of National Wilderness and Park Service use data, backcountry recreation use has increased with an average annual growth rate of 11.4 percent per year since 1990. This rate is

likely even higher since the analysis did not include day use, which is also thought to be increasing rapidly, or motorized undeveloped recreation. Many of these demands are not compatible with the desired experiences of other recreation user groups as well as the various other multiple use interests (e.g., grazing, oil and gas leasing, timber harvesting, etc.).

Conflicts between users are becoming more prevalent and according to one study (Muth and Fairey, 1995) social conflicts over recreation opportunities will increase in the future. This is largely due to an increase in conflicting individual and social values leading to a greater diversity of special interest groups, each advocating recreation activities that suit their own needs. Competition for allocations of recreation opportunities often results in conflicts when desired activities are not compatible (Blahna, Smith, and Anderson, 1995). This is resulting in an increasing need for conflict management. In light of population growth estimates, we also anticipate conflicts will increase. The day will come in the near future when the WCNF will not be able to meet the diversity of demands placed on it. This leaves forest management in the position of deciding which demands may or may not be met in the future.

Tourism, and marketing associated with it, also affects demand and availability of recreation opportunities. The State of Utah considers tourism an important source of current and future economic growth. According to information in the (Utah, State of. 2000e) tourist demand has shown only modest growth recently (1-2 percent), but is expected to grow at a greater rate over the next five years due to the publicity and recognition related to Salt Lake City hosting the 2002 Winter Olympics. For the WCNF much of the tourist industry is associated with driving for pleasure and downhill skiing. Additional services of value to visitors from outside of the area, and provided within WCNF lands, include outfitting and guiding for hunting, fishing, and winter sports activities.

The diversity of Utah landscapes provides spectacular scenic vistas for the traveling public. The WCNF is no exception as demonstrated by the one National Scenic Byway, four State Scenic Byways and nine State Scenic Backways (see Table RM-6 in Topic 3-Roads Access Management) providing opportunities for driving for pleasure and viewing scenery. Downhill skiing is a major attraction bringing visitors to Utah. Being within a one-hour drive from a major international airport and a large metropolitan area, the five ski resorts on the WCNF provide some of the easiest downhill ski access anywhere for out-of-area visitors. Nature-based activities such as hunting and fishing depend on large, open areas with intact habitats one could find on the WCNF. Winter sports are also dependent on open, high elevation settings found largely on the WCNF.

Current demand on the WCNF from the tourism industry is not known. Demand is affected by numerous factors such as weather, economic considerations, currency exchange rates, and marketing and promotion efforts. By providing a diversity of recreation opportunities within the natural setting, the WCNF partners with the tourism industry to provide for many of the opportunities they market.

Developed Recreation

Developed recreation sites are those areas containing a concentration of improvements, facilities and services which are built primarily to invite, encourage or enhance participation in a

recreation activity or visitor experience as opposed to providing facilities just for resource protection. Improvements considered developed sites could range from campgrounds with water systems, flush toilets and showers, to small trailheads with bulletin boards or barrier rocks, to delineated parking lots.

The WCNF manages a wide array of developed recreation sites. Concessionaires now operate approximately 98 percent of these sites under permit. Concessionaires are private businesses, which operate and maintain Forest Service recreation facilities under special-use-permits (SUP's). Five major ski areas are managed under SUP's on the WCNF. Private concessionaires operate about 70 campgrounds and assorted day-use, picnic areas, boat launches, interpretive sites, and some trailheads (Table REC-4). Many campgrounds are older facilities, which have trouble accommodating visitors driving larger vehicles, often with recreation vehicles in tow. Many of these older sites are also not designed to accommodate persons with disabilities.

**Table REC-4. Number of Developed Recreation Sites
by Ranger District on the WCNF and the
Number of People at One Time (PAOTs) Sites are designed to Accommodate**

SITE TYPE	SLRD (D1)	KRD (D3)	ERD (D4)/ MVR (D5)	ORD (D6)	LRD (D7)	FOREST TOTALS
	# Sites / PAOTs	# Sites / PAOTs	# Sites / PAOTs	# Sites/ PAOTs	# Sites / PAOTs	# Sites / PAOTs
Publicly Developed Facilities						
Campgrounds	13 / 3205	19 / 3572	15 / 1995	13 / 1935	16 / 2355	76 / 13062
Picnic Areas	19 / 2105	6 / 435	1 / 45	3 / 1190	10 / 605	39 / 4380
Interpretive/Obser.	2 / 410	7 / 326	5 / 125	2 / 70	15 / 325	31 / 1256
Boat Launch/Swim				3 / 758		3 / 758
Trailheads	10 / 904	16 / 1653	13 / 1322	10 / 640	18 / 1497	67 / 6016
Angler Parking		10 / 693		2 / 120		12 / 813
Winter Resorts	4 / na			1 / na		5 / na
Winter Play Area			1 / 420			1 / 420
Privately Developed Facilities (Under Special-Use Permit)						
Recreation Residences	142 / 710	41 / 205	40 / 200	45 / 225	83 / 415	351 / 1790
Organization Camps	1 / 50	2 / 100	1 / 50	2 / 100	2 / 100	8 / 400
Clubs	2 / 100	1 / 50		1 / 50	2 / 100	6 / 300
Restaurants	1 / 100					1 / 100
Stores	1 / 25					1 / 25
Outfitter and Guides	6 / na	3 / na	1 / na	0 / na	5 / na	15/na

Data from Meaningful Measures Report # 34, developed on Jan. 5, 2001

Some of these developed facilities are constructed by the Forest Service on public land, but are managed and maintained by concessionaires. These publicly developed facilities often include campgrounds, picnic areas, and trailheads. The WCNF also has permitted uses where the facilities are constructed and maintained by the businesses or private individuals, but are located on public lands. These privately developed facilities can include Winter Resorts (generally ski areas), recreation residences, and organization camps. Whether these developed facilities are

public or private, they all operate under Forest Service regulations specified in their individual permit.

Currently most districts on the Forest report that campgrounds and many other developed sites are full on weekends from July through September. In the more popular sites, use exceeds capacity. There are two types of capacity considered for management of developed sites, design capacity and operational capacity. Design capacity is based on the number of people at one time (PAOT) a site is designed to accommodate. The operational capacity of a site is calculated as 40 percent of the design capacity and is the level beyond which long-term resource damage is likely to occur. Information extracted from the Meaningful Measures database (Table REC-5) suggests that developed recreation sites are nearing design capacity, or meeting it at the most popular individual sites, during holidays and week ends in the summer season. Table REC-5 also shows that developed sites are exceeding operational capacity during the high use and holiday seasons.

Table REC-5. The Weighted Average Occupancy, by Percent and Season of Use, of Developed Recreation Sites on the WCNF

Ranger District	Season of Use and Percent Occupancy			
	High	Shoulder	Low/Closed	Holiday
Salt Lake RD	48%	15%	1%	99%
Kamas RD	78%	31%	5%	92%
ERD/MVRD	35%	7%	0%	75%
Ogden	51%	30%	8%	85%
Logan	33%	15%	3%	69%
WCNF	49%	21%	4%	84%

Data from Meaningful Measures Report 34, developed on Jan. 5, 2001

In light of the population growth projections for the state, visitation is expected to continue to increase, causing some weekend visitors to be displaced or unable to find their desired recreation setting or experience. Some of these visitors will be displaced to less developed or undeveloped areas where increasing concentrations of human use are more likely to cause unacceptable resource impacts.

Undeveloped Recreation

Concentrated Use Areas (CUAs) are areas where undeveloped site(s) are located where amenities management focuses on resource protection rather than user convenience. They may contain some level of development, but improvements are made with the primary purpose of protecting the biophysical resource.

As developed campgrounds fill-up on weekends during the summer, visitors are displaced, often to undeveloped camping areas where no mitigation measures have been taken to protect the resource. Many other visitors choose an undeveloped setting for their desired activities or experiences. Some visitors, such as horseback and OHV groups, are often restricted from developed sites and must choose undeveloped recreation sites. These groups often select trailheads for their camp, increasing impacts there and affecting availability for other user groups and day use activities.

Recognizing their uses have impacts some organized groups, such as Backcountry Horsemen of America, work with the Forest Service to educate the public concerning equestrian impacts and assist the Forest Service in maintenance and rehabilitation projects.

Recreation managers do not know exactly how many people use the forest daily, what they come for, or how they perceive their visit. We do know that there are unacceptable levels of resource impacts in some areas. Heavily used undeveloped campsites in riparian areas; evidence of litter and human waste; and campsite impacts relating to soil, vegetation, aquatic resources, and water quality are all concerns.

While the aerial extent of these factors in relation to the total size of the WCNF is small, these localized concerns can cause unacceptable impacts to valued biophysical or social resources. These impacts may be the result of desired activities, but may also affect the desired experiences of other visitors or the desired condition of associated resources.

Hunting is one activity that places a high demand on undeveloped recreation settings. This use is seasonal and intense. Visitors tend to camp in large groups extending resource impacts beyond other typical uses. The major hunts for deer and elk occur in the late fall when roads and trails are often wet, causing impacts to these systems as well as soil, water, and vegetation resources. Fishing use occurs over a longer period with peak use on weekends. Impacts are localized to lake and stream shores with some additional impacts at highway pullouts and associated access trails.

Trails Management

Another important component of undeveloped recreation is the trail system. Trails provide visitors access away from developed recreation sites and support many recreation activities such as backcountry camping, hiking, hunting, horseback riding, OHV riding, and mountain biking. The Forest trail system is managed for multiple-use. However, not all uses are accommodated on all trails. Trails are managed to facilitate public travel and access in the backcountry. Continued access to well-maintained and signed trails is of great importance to our public users. An increased demand for trail activities has placed a greater emphasis on trail system planning, construction, and reconstruction.

In general, many trail users expect a primitive experience with physical challenges. However, there are exceptions, such as urban trails with limited grades and easy walking surfaces, nature trails, and short popular destination trails. Access for range, fire control and other administrative uses are other purposes for trails.

The need for trails and their management is a priority by both the public and the Forest Service. In January of 2001, President Clinton signed an executive order called “Trails for America in the 21st Century” which emphasized providing trail opportunities of all types with minimum adverse impacts and maximum benefits for natural, cultural and community resources.

Most of the trails on the WCNF receive very high use, except for a few more remote, low maintenance trails. Many trails now receive year-round use. Hiking, horseback riding, biking and motorized use of trails are popular in the summer. Winter use on trails for cross-country

skiing, snowshoeing and snowmobiling has greatly increased. Trails are often crowded at popular trailheads on weekends and holidays, particularly near the Wasatch Front.

One of the most challenging issues for trail managers is where to provide opportunities for motorized and mechanized travel on trails, as well as to minimize user conflicts and resource impacts. All trails are open for hiking and most are open to horseback riding and biking. There are a few closures for horses such as in the Salt Lake City watershed (which is also mostly closed to motorized uses), on interpretive-nature trails, boardwalk trails, during some recommended seasonal closures such as during wet conditions, and winter cross-country ski or snowmobile trails. A few trails in the Forest, primarily interpretive nature trails, are barrier free and facilitate access for the physically challenged.

Specific routes and their appropriate uses are displayed in Travel Maps created at the Ranger District level. These maps indicate which routes are motorized or non-motorized in the summer and winter, as well as showing which areas are open and closed to oversnow motorized uses. On the WCNF summer overland travel is on designated-open routes only. Oversnow travel is less restricted with open areas and a few designated routes. Motorized use is especially popular during the fall hunting season.

There are 1679 miles of system trails on the Forest of which 1381 miles (82 percent) are non-motorized and 306 miles (18 percent) are motorized. Motorized uses are also allowed on most of the approximately 1600 miles of road within the Forest many of which are relatively primitive providing a rugged motorized experience. Of the non-motorized trails 358 miles (26 percent) are in Wilderness (Table REC-7). In addition to these total miles, there are approximately 162 miles of state groomed snowmobile trails on all but the Salt Lake Ranger District that have not been added to the system trails inventory. There are approximately 427 different trails on the forest. In addition, there are many user-created non-system trails. The 1985 Forest Plan listed approximately 1,041 miles of trails. This shows a 38 percent increase in mileage since 1985; however, much of this difference may be due to changes in inventory accuracy and types of trails counted.

The Cache-Box Elder Management Area has the highest percentage of total miles of trails and non-motorized trails (25 percent) of the seven management areas, while the Western Unitas Management Area has the highest percentage of motorized trails (29 percent) (Table REC-6). Table REC-6 includes only trails and portions of trails that are on WCNF lands. The table does not include portions of trails that are on private or state lands.

Table REC- 6. Trail Miles by Management Area

Management Area	% of Total Miles on the Forest	% of Non-Motorized Total Miles on the Forest	% of Motorized Total Miles on the Forest
Bear	3	3	2
Cache – Box Elder	25	25	23
Central Wasatch	14	16	4
Eastern Uintas	20	23	9
North Wasatch-Ogden Valley	13	12	20
Stansbury	5	3	13
Western Uintas	21	19	29

Appropriate trail uses are typically managed at the Ranger District level. The Salt Lake Ranger District has the most miles of trails (total miles and non-motorized miles) of all the Ranger Districts, while the Kamas Ranger District has the highest amount of motorized miles (Table REC-7). There are several designated, motorized trail networks. Approximately 57 trails are open to ATV use and 74 trails are open to motorcycle use on the Forest.

Table REC-7. Non-Motorized, Motorized, and Wilderness System Trail Miles by Ranger District

Summer Trail Use Categories	miles	% Dist	% WC	miles	% Dist	% WC	miles	% Dist	% WC	miles	% Dist	% WC	miles	% Dist	% WC	miles	% Dist	% WC	miles	% Dist	% WC
1 Hiking	36.1	10	14	76.3	28	30	77.2	33	31	20.0	7	8	34.6	15	14	6.9	2	3	251.1	15	
2 Hiking, Biking	96.8	27	79		0	0	1.0	0	1	23.0	8	19		0	0	2.0	1	2	122.8	7	
3 Hiking, Biking, Horse	116.0	32	21	77.4	28	14	39.3	17	7	19.2	6	4	158.7	68	29	137.5	49	25	548.1	32	
4 Hiking, Horse	35.0	10	8	70.0	25	15	93.2	40	20	171.8	56	37		0	0	88.8	32	19	458.8	27	
5 Hiking, Biking, Horse, Motorcycle	42.3	12	48		0	0		0	0		0	0	27.0	12	30	19.6	7	22	88.9	5	
6 Hiking, Biking, Horse, ATV		0	0		0	0		0	0		0	0		0	0	3.0	1	100	3.0	0	
7 Hiking, Biking, Horse, ATV, Motorcycle	25.6	7	12	52.8	19	26	22.2	10	11	71.5	23	35	12.7	5	6	21.6	8	10	206.4	12	
8 Hiking, Biking, ATV, Motorcycle	7.7	2	100		0	0		0	0		0	0		0	0		0	0	7.7	0	
Total	359.5	100	21	276.5	100	16	232.9	100	14	305.5	100	18	233.0	100	14	279.4	100	17	1,686.8		

Winter Trail Use Categories	Salt Lake miles % Dist % WC	Kamas miles % Dist % WC	Evanston miles % Dist % WC	Mountain View miles % Dist % WC	Ogden miles % Dist % WC	Logan miles % Dist % WC	Total WCNF miles % WC
1 None*	313.9 87 30	45.0 16 4	123.6 53 12	172.7 57 17	150.5 65 14	237.3 85 23	1,043.0 62
2 XC Ski	4.0 1 6	9.0 3 14	10.2 4 16	20.0 7 31	21.2 9 33	0 0	64.4 4
3 Snowmobile	41.3 11 11	200.5 73 52	32.1 14 8	89.8 29 23	19.6 8 5	3.9 1 1	387.2 23
4 Snowmobile, Groomed Snowmobile	0 0	21.9 8 14	67.0 29 41	23.0 8 14	41.7 18 26	8.3 3 5	161.9 10
5 Groomed Snowmobile	0 0	0 0	0 0	0 0	0 0	30.3 11 100	30.3 2
Total	359.2 100 21	276.4 100 16	232.9 100 14	305.5 100 18	233.0 100 14	279.8 100 17	1,686.8

In the winter, snowmobile use is very popular. There are groomed snowmobile trails on all Districts except for Salt Lake. Most of these routes are on roads closed for the winter and are groomed in partnership with the State of Utah, Division of Parks and Recreation. Snowmobiling is not allowed in Wilderness, research natural areas, groomed cross-country ski areas, or critical big game winter range. Trails open to snowmobiles vary, depending on District travel plans and snow conditions.

The types of trail uses, the volume of trail users, trail conditions, maintenance, available information, signing, and parking affect trail user experience. Many trails are open for more than one type of user. There are conflicts between user groups on trails. Many trails have evolved without considering trail location suitability or priority of uses. Problems with travel management direction include unclear management direction and the lack of loop facilities. Some trails that access National Forest land actually begin on private land, have been historically used for access and need right-of-ways for access because of developments and private landowners closing them off. Trailheads on the Forest vary from those with large parking lots, kiosks, and facilities to those that are just a small pull-off by the road.

Some trails are groomed for cross-country ski opportunities and closed to motorized use. These areas on the Forest are quite popular. The main areas that are groomed for cross-country skiing are Mill Creek (Salt Lake District), Beaver Creek (Kamas District), Lily Lake (Evanston District), Henrys Fork and Dead Horse (Mountain View District) and about 10 trails on the Ogden Ranger District.

In the 1985 Plan the goal was to construct and reconstruct 20 miles of trail annually. Only about 25 percent of that objective was met, due to experienced funding. The 1992 Plan Monitoring Report identified an average of 4.7 miles of trail construction and reconstruction from 1986 to 1991. From 1992 to 2000, approximately 46 miles of new trail have been constructed and 102 miles of trail reconstructed on the Forest. Most new trails were constructed on the Salt Lake and Ogden Districts (Central and North Wasatch – Ogden Valley geographic areas), while the Kamas, Evanston/Mountain View (Western and Eastern Uintas geographic areas) and Logan Districts (Cache – Box Elder geographic area) have higher mileages of reconstructed trails.

A large backlog of trail maintenance exists and many of the older trails in the system are in poor condition and continue to deteriorate because of lack of budget for maintenance and improper location. Only a small percentage of trails receive adequate maintenance due to limited trails management budgets. Some maintenance of trails is done by volunteer labor. The Forest Service is currently doing inventories of existing trails (INFRA) and determining costs to maintain and bring trails up to standards (Meaningful Measures).

Special Designation Trails

The Forest has two designated National Recreation Trails – Bald Mountain Trail on the Kamas Ranger District and the Naomi Peak on the Logan District, more than half of which is in the Mount Naomi Wilderness.

There are also small National Historic Trail segments of the Mormon Pioneer, Pony Express, and the historic Donner-Reed route. These three trails use the same route, cross small portions of the Forest just north of Mountain Dell Reservoir and south of Big Mountain Pass on the Salt Lake Ranger District. In addition, the Weber Canyon route of the Hastings Cutoff National Historic Trail passes through about two miles of National Forest lands on the Ogden Ranger District. It is believed there is no intact portion of this route remaining. There are two very important regional trails on the Forest, the Great Western Trail and the Bonneville Shoreline Trail.

The Great Western Trail (GWT) is a trail of National, Regional and Statewide importance. The plan for it is to include over 4,455 miles of roads and trails crossing five states including Utah from Canada to Mexico. Approximately 1,600 miles of the trail is in Utah, including those segments on the WCNF. The trail has been proposed as a national trail in a new designation called “National Discovery Trails”. These National Discovery Trails will be continuous interstate trails and their purpose is to help users experience and learn about aspects of American life and history and aid in connecting urban areas with rural and backcountry areas.

In most cases, the trail corridor is a combination of existing roads and trails and has both motorized and non-motorized segments. Trail segments facilitate both winter and summer use. Often the trail has parallel routes to separate motorized and non-motorized users. Local communities view the GWT as providing both recreational and economic benefits. Most of the route exists on the Wasatch – Cache and segments cross all Districts on the Forest except for Mountain View. The segment on Kamas and Evanston Ranger Districts is winter only and follows the Mirror Lake Highway 150 and Soapstone Basin Road 80037.

The Bonneville Shoreline Trail (BST) is a trail proposed by the State of Utah with regional and local importance. The trail was designated as one of sixteen national Millennium Legacy Trails in October 1999. It will stretch more than 100 miles north to south along the Wasatch Front, tracing the ancient eastern shoreline of Lake Bonneville as much as possible. The proposed route is from Santaquin in the south to Brigham City in the north. Additional proposals extend the BST north from Brigham City along the Wellsville Mountains to Tremonton, and then the trail would enter Cache Valley and follow the shoreline there. This trail affects the Salt Lake, Ogden and Logan Ranger Districts of the Wasatch – Cache, as well as the Uinta National Forest. Local communities look for the BST to provide both recreational and economic benefits. Parts of the trail have been constructed, other segments are in various planning stages and much of the preferred trail route is off the Forest, but it could provide essential ties between the communities and the WCNF. The route is proposed for non-motorized use. Uses such as horse back riding, biking and hiking may vary by the segment and location of the trail. The objectives of the trail are:

- Provide ready access to the Wasatch foothills public lands.
- Provide a place for people to pursue their recreational pursuits that is safe and aesthetically pleasing, trying where possible to accommodate a broad range of non-motorized uses.
- Provide a place for people to have an opportunity for quiet and scenic recreational use nearby, yet apart from the urban Wasatch front.
- Provide for rapid deployment of fire fighting resources to the urban/foothills interface, opportunities for backfiring operations, cleared trails for firefighter escape routes, and to serve as a buffer between the urban and natural environments.
- Contribute to the preservation of aesthetic, wildlife, historic and educational values of the foothills.

Recreation Special Uses

Many uses on the WCNF require formal management authorization. All commercial uses on the WCNF are regulated. These uses are generally authorized by Special Use Permits (SUPs). Recreation special uses range from agreements with private entities to manage publicly

developed facilities such as campgrounds and picnic areas to agreements regarding private facilities or activities such as ski areas, recreation residences or outfitter and guides (refer to Table REC-4 for uses under permit).

Ski Area Management

Five ski areas operate on National Forest System Lands administered by the WCNF. Existing resorts include Alta, Snowbird, Solitude and Brighton located in Salt Lake County and Snowbasin located in Weber County. Since the 1985 Plan was written, Beaver Mountain ski area in upper Logan Canyon is no longer on National Forest System lands as the result of a land exchange completed in 1999.

A number of ski areas lie outside, but near the Wasatch-Cache and influence development at National Forest-based areas. The Canyons Ski Resort, Park City Mountain Resort, and Deer Valley resort are located in Summit County and play a significant role in the ski industry of Utah.

Nordic Valley, Beaver Mountain and Powder Mountain are smaller ski areas that serve local clientele. New development is also being planned on Bonanza Flat in Wasatch County with ski lifts and ski terrain connecting to Park City and Deer Valley and adjacent to Brighton's development area boundary.

Annual Skier Visits

The number of skier visits to the resorts on the WCNF is shown in Table REC-8. It shows the average annual growth rate since the 1985-86 skiing season. The 1985 Wasatch-Cache Forest Plan predicted a compound growth rate of 3.02 to be most likely during the time period 1985 through 2000 (USDA Forest Service, 1985). Forest plan projections were much higher than what has been experienced since 1985, which is essentially no growth. While these projections were oriented towards a different measure of skier activity, they provide a context for evaluating the accuracy of projections. The 1985 Forest Plan's projections were too high every year, especially during years with poor snow conditions. (Utah, State of, 1998)

Master Development Planning

Of the five major ski resorts under special use permit from the Forest, four have recently completed updates to their Master Development Plans (MDP). These updates outline ski trail terrain modifications and new or replacement facilities to be built within the next five years. All approved MDPs are in various stages of implementation.

Alta Ski Area MDP update was approved in November of 1997. Projects include trail modifications; lift replacements, building replacements, a remodeled day lodge, an access road and snowmaking facilities. All projects were approved to take place within current ski permit boundaries.

Brighton Resort MDP update was approved in October of 1999. Projects include trail modifications, lift replacements, replacement of buildings, a new day lodge, and additional snowmaking and further lighting for night skiing. Summer activities were expanded to provide more mountain biking opportunities. All projects were approved to take place within current ski permit boundaries.\

**Table REC-8. Estimates of Utah Skier Visits
by WCNF Ski Areas (in thousands)**

Ski Areas On Wasatch Cache NF	Skier Visits 1985/1986	Percent of total Utah skier visits – 1985/1986	Skier Visits - 1999/2000	Percent of Total Utah skier visits – 1999/2000	Average annual growth rate - 1986-2000
Alta	439.7	17.7%	382.1	13%	-1.0%
Brighton	236.8	9.5%	337.1	11%	2.6%
Snowbasin	77.6	3.1%	79.6	3%	0.2%
Snowbird	343.2	13.8%	393.1	13%	1.0%
Solitude	230.9	9.3%	175.3	6%	-1.9%
UTAH	2,491.0	100%	2,977.0	100%	0.2%

Governors Office of Planning and Budget – Utah Ski Database – available at www.governor.state.ut.us/dea/publications; and for more recent years (98,99,00)USDA-FS, Intermountain Region Annual Skier Totals (2000)

Snowbird Ski and Summer Resort MDP update was approved in December of 1999. Projects include: trail modifications lift replacements, a new day lodge, a new mountaintop building, parking lot and road improvements and snowmaking facilities. Summer activities were expanded to provide more hiking opportunities. All projects were approved to take place within current ski permit boundaries. As part of the MDP, 500 acres of additional skiing terrain was opened on private land in Mineral Basin.

Solitude Ski Resort MPD update was approved in January 2002. Projects include trail modifications, lift replacements and upgrades, remodeling of buildings, a new mountain operations center, new day lodge, new fire station, new mass transit center and entrance modifications and additional snowmaking. Summer activities were expanded to provide more mountain biking opportunities. All projects were approved to take place within current ski permit boundaries. Extensive development on private land at the base is mostly complete.

Snowbasin MDP was approved in 1997. A land exchange authorized by Congress, was finalized in the summer of 2000. About 1200 acres of National Forest System lands at the base of the resort are now private lands where future development is planned or ongoing. Mountain facilities continue to be operated under permit. Facilities, lifts, ski trails and connector highway were constructed for use in the 2002 Olympic Winter Games.

Table REC-9 displays the number of Skiers At One Time for each of the ski resorts on the Forest.

Table REC-9. Skiers At One Time (SAOTs) Capacity by Ski Area

SKI AREAS	1985		1999	
	Lift Capacity (SAOTS) ¹	Number of Lifts ²	Lift Capacity (SAOTS)	Number of Lifts
ALTA	4,525	8	5,202 ³	8
BRIGHTON	3,000	4	5,100 ⁴	7
SNOWBASIN	2,650	6	6,775	9
SNOWBIRD	4,400	8	5,950 ⁵	10
SOLITUDE	3,400	5	5,600	7

¹WCNF Forest Plan, pg II-7²WCNF 1982 Analysis of the Management Situation³Approved capacity from 1997 MDP FEIS⁴Approved capacity from 1999 MDP FEIS⁵Approved capacity from 1999 MDP FEIS

Permitted Acres

The five ski areas on the WCNF have been under permit for many decades. Since the Forest Plan was approved, the National Forest Ski Area Permit Act was enacted. It allows the private sector to be permitted to operate ski areas on National Forest System lands for a period of up to 40 years. All resorts now operate under the newly issued 40-year permits. Table REC-10 shows that acres under permit have not changed significantly since 1985. Permitted acreages are often slightly different than acres that have been accurately measured during MDP planning with computer digitized mapping of permit boundaries.

Table REC-10. Permitted Acres, 1984 and 1999, by Ski Area

SKI AREAS	Acres Permitted – 1985		Acres Permitted- 1999	
	Private	WCNF	Private	WCNF
ALTA	321	1768	327	1803
BRIGHTON	158	845	164*	851*
SNOWBASIN	40	1801	40	1618
SNOWBIRD	-	881**	1629	1633**
SOLITUDE	164***	362	164***	363

Acreage taken from permits and applicable amendments except:

- data not available at time of publication.

*873 acres reported in MDP EIS. Difference in acreages is due to mapping. Brighton may have added 3 acres within Brighton Circle as part of 1991 MDP decision.

**from SL Ranger District FEIS, MDP and decision. 75 acres added in Mineral Basin, also private land in SL and Utah Counties.

***from SL Ranger District – no change in permit boundaries since 1985. More recent mapping of boundaries shows about 527 acres NF lands. Any differences due to more accurate mapping.

Future Expansion

In 1991, Brighton proposed expansion onto private land in the Snake Creek drainage in Wasatch County and into Hidden Canyon in Salt Lake County. A land trust eventually was able to purchase the lands in Wasatch County. Salt Lake County never approved expansion into Hidden Canyon. In Brighton's most recent Master Development Plan (MDP), no expansion outside the permitted boundary was proposed.

In the recent 1999 MDP decision for Snowbird, a proposal to include Scotty's Bowl in the permit area was denied. Snowbird has also expressed interest for expansion into White Pine.

Private Land

Private land expansion and development are ongoing at the Canyons Ski Resort, Park City Mountain Resort, and Deer Valley Resort located in Summit County. New development is also being planned on Bonanza Flat in Wasatch County with ski lifts and ski terrain connections to Park City and Deer Valley. Development adjacent to Snowbasin on private lands is anticipated over the next several years.

Statewide Visitation Trends

Total skier visits in Utah are forecasted to grow from around 3 million currently, to over 4 million by 2007. The forecast annual growth rate of 3.4 percent per year is almost twice the recently experienced rate of 1.8 percent per year since 1985. The major reason skier visit growth to 2007 is expected to grow more rapidly than since 1985 is that Utah's skiing age population will grow much more rapidly than it has since 1985. Destination skier visits are expected to grow a bit more rapidly to 2007 at 3.1 percent per year. This is somewhat higher than the trend anticipated nationally. (USDA Forest Service. 1999d)

Skiing in Utah has been on a steady growth path the last four decades. From a couple of hundred thousand during the early 1960s, skier visits in Utah have grown to over 3 million in the late 1990s. While the overall Utah ski market has been growing, the structure of the market has been changing. Skiing in Utah has evolved from a predominately resident day outing activity to more of a destination week long vacation. By the 1990s, destination tourists made up 55 – 60 percent of the skier visits (USFS Forest Service. 1999d).

Descriptions of Recreation by Ranger District

Each Ranger District on the Wasatch-Cache offers unique recreation opportunities dependent on the physical setting, access systems, customer preferences for different types of recreation, and the relationship of recreation to other uses or management concerns. The following profiles are meant to provide a short description of the variety in recreation with some observed trends for the Ranger Districts on the forest. The variety and amount of recreation is considerable compared to most other national forests. (See Landscape for descriptions of physical settings within which recreation occurs.)

Salt Lake Ranger District

The Salt Lake Ranger District (SLRD) manages recreation use in the Central Wasatch, North Wasatch-Ogden Valley and the Stansbury Management Areas. Managers consider three distinct areas on the district: the Wasatch Front, Davis County, and the Stansbury Mountains.

Recreation use along the Wasatch Front is seasonal with distinctive peaks in both summer and winter. Summer use occurs from May to October, with a shorter season at higher elevations. Popular activities include hiking, camping, backpacking, driving for pleasure, fishing, and mountain biking. Local watershed protection regulations preclude horses and dogs from most

Wasatch Front recreation areas. Winter use occurs from early November until April and popular activities include alpine/cross-country/nordic/backcountry skiing, snowboarding, snowshoeing, snow play, and helicopter skiing.

Recreation use in Davis County and the Stansbury Mountains also occurs year-round. The majority of use occurs during the summer, from May to October. Popular activities include hiking, mountain biking, equestrian use, OHV use, hunting and camping. Winter use occurs from November to May and includes primarily snow machine use, however, minimal backcountry skiing, snowboarding, snow shoeing, cross-country and nordic skiing occur.

Access Systems

The SLRD is adjacent to the Wasatch Front urban center. Year round recreation areas are accessed by State Highways and Scenic Byways 210 (Little Cottonwood Canyon, LCC), 190 (Big Cottonwood Canyon, BCC) and Salt Lake County Road Mill Creek Canyon, which is managed through a partnership with Salt Lake County. Visitors can also access the SLRD on several Scenic Backways including Immigration Canyon, East Canyon (SR 65), Farmington Canyon, Skyline Drive, Ward Canyon, and South Willow Canyon.

SLRD also provides approximately 344 miles of system trails. This system includes motorized, non-motorized, and Wilderness trails as well as four miles of winter groomed ski trails.

Notable Areas of National/Regional Significance

The SLRD manages all or part of four Designated Wilderness areas: Lone Peak, Twin Peaks, Mount Olympus, and Deseret Peak. The Great Western Trail and the Bonneville Shoreline Trail are also part of the district. There are also four major downhill ski areas on National Forest System lands managed by the SLRD.

Demand

Over the past several years, recreation use has increased, particularly along the Wasatch Front. Traffic counts in LCC indicate a growth rate of approximately 2.9 percent over the last 20 years. In BCC there has been a growth rate of approximately 3.1 percent over the last 21 years. Salt Lake County, directly adjacent to the District, was receiving 30 percent of the state's growth in 1996. The population there is expected to grow from approximately 820,000 to 1,000,000 people by the year 2010. Much of the projected growth is anticipated in Sandy (20 percent) and Draper (20 percent), which are adjacent to Big and Little Cottonwood Canyons.

High existing use levels, the proximity to a large urban population base, and the projected population increases all combine to create management concerns. Currently, managers deal with increasing and often intense user conflicts as well as issues regarding recreation management and facility development in a culinary watershed. Domestic animal management issues have increased as population increases.

Developed Recreation

There are a total of six developed campgrounds on the SLRD. Two are located in BCC, two in LCC, and two in Davis County. SLRD also provides 10 picnic areas, three interpretation sites, and 10 developed trailheads and a visitor information/interpretive center with a barrier free trail

at Silver Lake. In the winter, the SLRD administers special use permits for four alpine ski areas, one nordic ski area and one heliski operation. The ski resorts also provide a range of undeveloped and developed-site summer recreation opportunities including lift and non-lift served hiking and mountain biking as well as interpretive and educational programs. Developed opportunities for fishing are provided in BCC at the Silver Lake Boardwalk and in Mill Creek Canyon at the Terraces Boardwalk.

Undeveloped Recreation

Undeveloped recreation occurs in all three areas of the SLRD: Wasatch Front (primarily the tri-canyons), Davis County, and the Stansbury Mountains, with the majority of use in the tri-canyons adjacent to Salt Lake City. Hiking and mountain biking are the primary recreation opportunities along the Wasatch Front in the summertime. Opportunities for fishing are provided in LCC, BCC and Mill Creek. OHV and equestrian use are permitted in some areas where there is no conflict with watershed regulations. The Stansbury Mountains provide the best opportunities for undeveloped camping and equestrian use on the District.

In the winter, backcountry skiing, snowboarding and snowshoeing are the primary uses and are concentrated along the Wasatch Front. The SLRD manages three outfitter and guide permits for winter backcountry skiing. These uses all appear to be growing. Davis County and the Stansbury mountains receive substantial OHV and snow machine use.

Kamas Ranger District

The Kamas Ranger District (KRD) manages uses on a portion of the Western Uintas Management Area. July through September is the busiest season on the District, with campgrounds full nearly every weekend. Popular activities include camping, scenic driving, rock climbing, hunting, fishing, hiking, horseback riding, and backpacking. Winter activities that visitors enjoy include snowmobiling, snowshoeing, and cross-country skiing. There are two permitted organization youth camps and two outfitter and guides that provide youth at risk programs,

Access Systems

The KRD is within one hour of the Wasatch Front urban center and is immediately adjacent to numerous small towns and rural areas in Summit and Wasatch Counties. State Highway 150, Mirror Lake Highway, is a designated State Scenic Byway, which provides the main arterial access into the heart of the KRD. There are approximately 270 miles of system trails including motorized, non-motorized, Wilderness, and winter groomed ski and snowmobile trails.

Notable Areas on the District of National/Regional Significance

The KRD is the western portal to the High Uintas Wilderness. This is the closest high elevation access point from the heart of the Wasatch Front urban center. The Mirror Lake Scenic Byway, a Forest Service Fee Demonstration Area, also bisects the KRD. The Bald Mountain National Recreation trail provides visitors opportunities for a short steep hike with exceptional views of the surrounding landscape. Bald Mountain stands at the juncture of four of the most productive watersheds in Utah.

Demand

Over the past several years recreation use has increased, particularly along the Mirror Lake Highway corridor. Much of this use is spilling over from the urban areas of the Wasatch Front. Weekend activities are the most prominent. Group recreation sites continue to be very popular.

Developed Recreation

The KRD has 16 developed campgrounds along the Mirror Lake Highway. In addition, there are two campgrounds at the Smith and Morehouse area in the Weber River drainage on the northern edge of the KRD. There are also four picnic areas, nine trailheads and several interpretive sites.

Undeveloped Recreation

Undeveloped recreation management along the Mirror Lake Highway corridor has begun to emphasize more designated and hardened undeveloped areas to protect resource and social settings and provide for RV camping. Side routes and canyons continue to remain more open to user selected undeveloped sites. In winter, the Mirror Lake Highway is closed at the Soapstone Basin Road turn-off about 14.5 miles from Kamas. The remaining roadway and the Soapstone road are groomed for snowmobile traffic. The district also grooms the very popular Beaver Creek Ski trail along the highway. Three winter backcountry ski huts are under special use permit providing overnight backcountry and educational opportunities.

Evanston and Mountain View Ranger Districts

The Evanston and Mountain View Ranger Districts (E&MVRD) are managed as one district. They manage a portion of the Western Uintas and the entire Eastern Uintas Management Areas. These areas are the farthest from the Wasatch Front urban center with parts of the Mountain View District in Wyoming. With a relatively short season of warm weather, campgrounds and trailheads are full most weekends during July, August, and September. Popular activities include camping, fishing, horse use, hiking, backpacking, and ATV and mountain bike riding. In the fall, hunting season for two states (Utah and Wyoming) and four species of big game is a huge impact. With the change in technology of the snowmobile industry in the last 10 years the snowmobile use on the west side of the district is very large. The E&MVRD provide a full grooming program for both snowmobilers and cross-country skiers. Yurt and cabin rentals are also offered.

The North Slope of the Uintas is a relatively gently rolling slope with elevations ranging from 8,000 to 10,000 feet up to the High Uintas Wilderness. This Wilderness is comprised of steeper slopes dotted with high mountain lakes and streams with elevations of 10,000 to 13,580 feet.

Lodgepole pine dominates the landscape, with significant areas vegetated with aspen or sagebrush communities. At higher elevations, Engelmann spruce and subalpine firs are the most common trees, with Douglas fir in isolated pockets. The landforms and soils are the result of massive uplifting followed by centuries of glaciations and erosion.

Access Systems

The west side of the district is within 1½ hours of the Wasatch Front urban center via the Designated State Scenic Byway, State Highway 150, Mirror Lake Scenic Byway. Travel time

increases to 2½ to 3 hours from the Wasatch Front the further east visitors' travel on a combination of Interstate 80, county and state highways, and graveled county and forest roads. In the winter, travel is longer as the Mirror Lake Highway is not plowed open.

There are approximately 500 miles of system trails including motorized, non-motorized, Wilderness, and winter groomed cross-country ski and snowmobile trails.

Notable Areas on the District of National/Regional Significance

The districts are the gateway to the heart of the north slope of the High Uintas Wilderness. They provide a very popular main access point to the highest peak in the state of Utah, Kings Peak at 13,584 feet. The E&MVRD are also considered part of the National Petroleum Showcase. The Mirror Lake Scenic Byway and Fee Demonstration Area are also part of the districts.

Demand

Over the past several years recreation use has increased, particularly along the Mirror Lake Highway corridor. Much of this use is spilling over from the urban areas of the Wasatch Front. Weekend activities are the most prominent.

Developed Recreation

There are nine campgrounds on the Evanston side of the District, with seven campgrounds along the Mirror Lake Highway. There are an additional five campgrounds on the Mountain View side of the District. Fifteen trailheads ranging from very small to fully developed campground facilities provide access throughout the north slope of the Uintas. Most of these trailheads provide access to the High Uintas Wilderness for hikers and equestrian users as well as summer ATV and mountain biking use outside of the Wilderness areas. Three picnic areas and six interpretive sites are also scattered across the districts.

Undeveloped Recreation

Undeveloped recreation opportunities are widespread across the District, primarily due to the ease of terrain: Undeveloped sites are abundant on most of the districts, with well over fifty concentrated use areas. These uses range from motorized recreation to mountain biking and hiking, watercraft and fishing, hunting and ATV use. In winter, some trailheads provide access for winter snowmobiling, cross-country skiing with three groomed areas, and snowshoe use.

Ogden Ranger District

The Ogden Ranger District (ORD) is located adjacent to the northern edge of the dense population areas of the Wasatch Front. The ORD manages parts of the North Wasatch-Ogden Valley, the Bear, and the Box Elder-Cache Management Areas. Recreation management is complicated by the extensive amount of intermingled public and private land ownership. The ORD is primarily a day-use area. May through September is the busiest season on the District, with developed facilities full every weekend. Popular summer activities include camping, scenic driving, hiking, biking, boating, swimming, bird watching, hunting, and fishing. Winter activities include snowmobiling, ice fishing, downhill and cross-country skiing. Pineview is managed as a day-use reservoir with restriction on camping.

Access Systems

The majority of the district is within one hour of the Wasatch Front urban center. The primary access route is State Highway 39 up Ogden Canyon and over Monte Cristo. Minor access points are from Interstate 84 over SR 167, Trappers Loop, or County Road 166 over North Ogden Divide. System trails just outside of the Ogden City limits are in significant demand for day use. Some of these miles of trail are on private property. Trails around Snowbasin Ski Area are also very popular.

Notable Areas on the District of National/Regional Significance

Pineview Reservoir with the adjacent shoreline and developed sites is the most heavily used recreation site on the WCNF.

Demand

Recreation use has increased slowly every year. Customer surveys have shown Most of the users are from the urban areas of the Wasatch Front. Nearly all of the recreation use comes from a five county area around Ogden.

Developed Recreation

There are thirteen campgrounds, one picnic-ground, two marinas, three swim beaches, two fisherman parking, eleven trailheads, and two overlooks on the ORD. Most of the developed sites are located in either the Pineview Reservoir, South Fork of the Ogden River, and Causey Reservoir. Pineview is the highest use recreation destination in northern Utah and is managed as a day-use area with overnight stays in developed campgrounds only. All campsites are full every Friday and Saturday night. Weekday use is approximately one-half that of weekend use. Developed recreation facilities under concession operation generate one of the highest annual revenues in the nation. A significant amount of the revenue is from second vehicles that come in after the primary recreation site user, and pays an additional fee.

Snowbasin Ski area is under permit and affects 1850 acres of National Forest System Lands as well as adjacent private property. Snowbasin was a venue during the 2002 Winter Olympic Winter Games. There is authorization in concept for development of a four-season destination resort.

Undeveloped Recreation

Undeveloped recreation occurs along most of the paved and natural surface roads in the District. Hardened undeveloped areas, to protect resources, have been provided in the Monte Cristo area near State Highway 39. Many of the inventoried undeveloped sites are used only during the big game hunting season. In winter, most of the Monte Cristo and Curtis Creek areas are extremely popular for snowmobiling. The snowmobile trailhead at Monte Cristo is one of the highest use winter trailheads in the state.

Logan Ranger District

The Logan Ranger District (LRD) manages most of the Cache-Box Elder and part of the Bear Management Area. The LRD shares management of these areas with the Ogden Ranger District.

The LRD is located in Cache Valley, Utah with a population nearing 80,000. It is within a 1.5-hour drive from the Wasatch Front urban center.

Visitors to the LRD participate in world-class rock climbing, mountain biking, horseback riding, canoeing, kayaking, as well as the more traditional uses like hunting and fishing. Some of the best snowmobile high-marking and touring in the country, cross country skiing, and telemark skiing are also found here.

Access Systems

Highway 89, a Scenic Byway and major north/south transportation route, is a very popular scenic drive, which links this area with Jackson Hole, WY and Yellowstone National Park. Hardware Ranch Utah 242, a Forest Service Scenic Backway provides for travel along the southern and eastern portion of the District, linking back into Highway 89 just before it drops down to Bear Lake. There are approximately 25 motorized access points onto the LRD providing travel on about 297 miles of roads. There are an additional 59 miles of motorized trails, 136 miles of non-motorized trails, and 85 miles of Wilderness trails. In the winter, the LRD and the ORD also share about 150 miles of snowmobile trails groomed by the State of Utah.

Notable Areas on the District of National/Regional Significance

The portion of Highway 89 which bisects the LRD is a regionally significant travel way. It was designated a National Forest Scenic Byway in 1989, a State of Utah Scenic Byway in 1990 *and a National Scenic Byway in 2002*. Approximately \$600,000 of Federal Grant, private and local government funds were invested in interpretation and additional visitor services in this stretch of highway in 1998 and 1999 with the project completed in 2000. The LRD also manages two designated Wilderness areas, the Mount Naomi Wilderness and the Wellsville Mountain Wilderness. Within the Mount Naomi Wilderness is the Mount Naomi Peak National Recreation Trail that takes visitors from a low elevation trailhead in Cache Valley to the popular Tony Grove recreation area. The Great Western Trail also traverses the district providing a regionally significant trail travel corridor.

The LRD also contains a regionally significant biodiversity corridor, thought to connect ecosystems to the north and south. More locally significant are the cliff walls of Logan Canyon, home to many endemic plant species as well as world-class rock climbing routes.

In the winter, the LRD is nationally known for its snowmobile opportunities. The complexes of groomed trails shared with the ORD have been rated among the top 15 areas in the west and is considered the most popular area in the State of Utah.

Demand

Over the past several years, recreation use has increased all over the district. More and more visitors are spilling over from the Wasatch Front. Developed recreation sites are generally full on weekends from July to September. In the summer, motorized use has increased dramatically with recreation ATV riding increasing in popularity. Rock climbing remains a popular activity, but the pioneering of new routes is decreasing. Horse use also remains popular, with local users requesting new facilities to increase resource protection. In the winter, snowmobile use has boomed with trailheads full every weekend. Visitors come from all over the country for the fine

powder and steep slopes. As the popularity has increased, so has the season of use with riders sledding in marginal conditions. Telemark and cross country skiing remain popular, although conflicts with other uses have affected the opportunities provided and skier experiences.

As technology advances and the population grows, use patterns appear to be changing. Aging campgrounds on the LRD are not sized or suited for the larger vehicles visitors now drive. Snowmobiles and ATV's power up slopes and through vegetation not previously explored. Backcountry skiers go further, stay out longer, and attack steeper terrain than previously. Fishermen read about and visit the Logan River more frequently. Rock climbers visit for the 5.11+ rated routes.

There is no longer an off-season. In some areas, springtime hikers compete for parking space with skiers and snowmobilers. Kayakers play in sections of the Logan River along with the fishermen. Summer campers are increasingly accompanied by OHV's. During the fall, visitors drive the area and stay to view the fall colors, while others are road hunting for deer or elk. Hunters seem to be doing less camping and more day hunts using ATV's. As winter approaches, snowmobiles and ATV's share the same trails to hunt or recreate. Full parking lots on weekends have displaced some snowmobiles to weekdays or nighttime. As the local population increases homes are being built ever higher on the benches, eliminating winter range and increasing recreation (and Wilderness) trespass along the Cache Valley front.

Developed Recreation

There are 15 campgrounds providing a variety of family and groups sites for day and overnight use. Two are along the northeast district front, 10 are up Logan Canyon, two in Blacksmith Fork Canyon, and one in Box Elder County. There are also nine picnic and day use sites, seven interpretive sites, and 17 developed trailheads. Tony Grove Lake is the most popular summer attraction with camping, fishing, canoeing, and hiking the favored activities.

Undeveloped Recreation

Undeveloped recreation is very popular on the LRD. Most of the camping sites are associated with the extensive road system. Almost 500 undeveloped vehicle camping sites have been inventoried by the LRD. The majority of these sites occur in the bottom of drainages along or in riparian areas. Low elevation sites are popular in late spring. As summer temperatures reach 90 to 100 degrees and upper elevations dry out, campers tend to move to the shade in the higher elevations.

Popular summer activities include hunting, fishing, hiking, mountain biking, horseback riding, and viewing scenery and wildlife. The greatest increase in an activity with significant potential resource impacts is recreational riding of OHVs. Many visitors come to camp and bring OHV's to tour the areas. Some are familiar with where they are and some are not. Many travel off of designated open routes due to lack of adequate signing or because designated routes do not take them where they want to go.

In the winter, snowmobile touring, snowmobile highmarking, crosscountry skiing, and telemark skiing are very popular. Snowshoeing is a growing activity, while many scout groups visit for camping in snow caves. Conflicts between skiers and snowmobilers have been a concern for a

number of years. The district does provide for separation of uses in a few areas, but repeated violations by the snowmobilers of areas closed to motorized use have displaced some skiers and negatively affected the opportunities and experiences of others.

Environmental Consequences

General Effects

This section discusses effects on recreation from the following activities: Recreation, Road and Access Management, Vegetation and Fuels Management, Livestock Grazing, Inventoried Roadless Area Management, Wildlife Management, Soil, Water, Aquatic and Semi-Aquatic Species Resources Management, Threatened, Endangered and Sensitive Species Management, Special Management Areas, and Oil and Gas Activities. Also discussed are environmental consequences for ski areas that include effects from Roadless Area Management, Fire/Vegetation Management, Scenery Management, Wildlife and Fisheries Management, and Watershed and Soil Management.

Many of the issues raised through public comment involve conflicts between recreation users. These issues are addressed in the section titled Effects on Recreation from Recreation which is divided into major topic areas: General Effects, Summer Recreation, Winter Recreation, Ski Area Expansion, and Heli-skiing.

Many comments have been received regarding conflicts between users on travel ways, particularly trails. Examples of the conflicts are hikers who do not like the sight, sounds, uneven tread surfaces, smells of horses, bicyclists, and motorized users; horseback riders who are concerned with personal and stock safety when approaching hikers and motorized users; and bicyclists who are concerned with safety from meeting other users on a trail. Although these are important issues they are not addressed in this FEIS because the issues are more appropriately addressed for specific trails or travel ways during travel management planning. Under all alternatives, the Forest Plan recognizes this issue by providing Goals and Objectives aimed at working with users to reduce or resolve these types of conflicts.

One of the issues identified through public comment is what levels of user densities we should manage for in the future and where. User densities are not established in this analysis, however, the issue is addressed through the summer ROS by identifying ranges of user densities for some opportunity classes. These density ranges are thresholds which when reached will trigger a public process for deciding on a site by site basis whether and how to limit recreation user densities.

Effects on Recreation from Recreation

General Effects

Given population growth and advances in technology, the trend is for recreational uses of the Forest to occur on an ever-increasing portion of the WCNF. These uses generally have some level of impact to the natural environment. Impacts are quite varied and may depend on timing of the use, sensitivity of the location, use intensity and specific behaviors of recreationists.

Management decisions to allocate different parts of the WCNF to different management prescriptions will affect recreation uses to some degree in all alternatives. Effects to recreation opportunities are generally related to allowed activities that could result in changes in the natural setting and/or in the levels and types of access.

The differences between alternatives and the relationship of these to current recreation opportunities for summer are displayed as acres of the various ROS summer settings in Table REC-11 and Figure REC-11. Appendix D-2 contains full descriptions of each of the seven Recreation Opportunity Classes.

**Table REC-11. Acres of Summer Recreation Opportunity Classes:
Existing Conditions and Alternatives**

ROS Category	Alternative and Existing Condition (EC)							
	1	2	3	4/1985	5	6	7	EC
Wilderness/Primitive ¹	36,500	36,500	36,500	307,500	36,500	36,500	36,500	36,500
Wilderness/SPNM ²	272,400	272,400	272,400	0	272,400	272,400	272,500	272,500
SPNM ³	556,200	436,300	392,100	241,900	308,400	411,800	416,100	416,100
SPM ⁴	135,800	188,700	223,600	85,600	268,800	201,400	276,800	276,800
RN(Roaded Natural)	234,600	301,500	311,100	545,600	349,300	313,400	227,900	233,600
Rural	720	720	720	13,600	720	720	6,400	720
Urban	144	144	144	0	144	144	144	144
NA ⁵	0	0	0	45,200	0	0	0	0
TOTAL ⁶	1,236,364	1,236,264	1,236,564	1,239,400	1,236,264	1,236,364	1,236,344	1,236,364

¹ Wilderness (MPC 1.1).

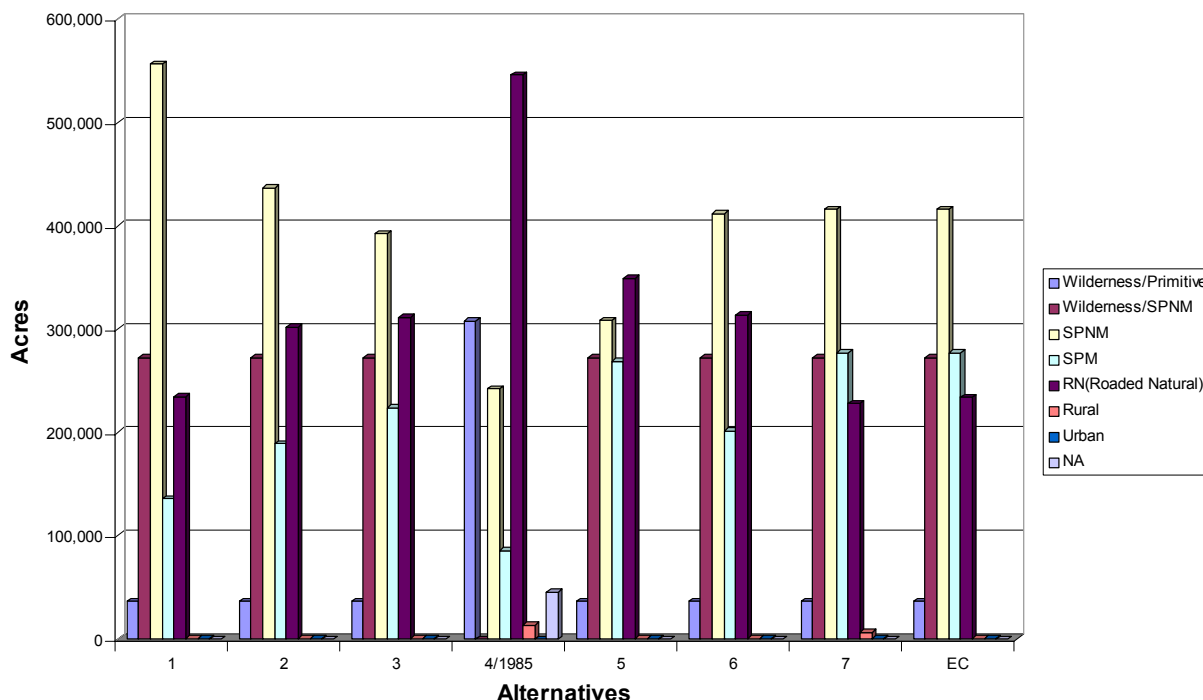
² Wilderness Semi Primitive Non-Motorized.

³ Semi-Primitive Non Motorized and Recommended Wilderness (MPC1.5).

⁴ Semi-Primitive Motorized.

⁵ Lands acquired after 1985 plan.

⁶ Totals differ due to GIS Mapping accuracy and rounding.

Figure REC-3. Acres of Summer ROS: Existing Condition (EC) and Alternatives

Note: Existing condition is not shown in graph. See Table Rec-12 for existing condition acres.

Recreation use (type and density of users) has an impact on the social and biophysical setting that can affect recreation opportunities and experiences. Under all alternatives recreation use and demand are expected to continue to increase. This increase, and changing demographics, may be accompanied by demand for a greater diversity in outdoor nature-based recreation opportunities. Emerging technologies will continue to create new uses with often new or unknown impacts. Effects of recreation use on the natural setting depend on facilities, site mitigations, user behaviors, user densities, site capability, design and many other factors. Based on the any one of these factors impacts to the natural setting can vary significantly.

Conflicts among users may increase as available space becomes more crowded, where incompatible uses are not separated, or where desired opportunities are not available. However, new technology, such as quieter, cleaner running motors, might be used in the future to actually reduce conflicts between users. Also user behavior could be modified to reduce some types of conflicts. Because desired uses vary considerably, each alternative has advantages for certain groups of users while being less desirable for other groups. Conflicts between uses and natural resources protected by existing legislation (e.g., ESA, Clean Water Act, Federal Cave Resources Act of 1988) must be managed in accordance and through consultation with the appropriate entity such as the US Fish and Wildlife Service. Alternatives vary in the potential for these conflicts depending on which activities are allowed and where.

Finally, whichever alternative is selected, management actions must be developed to fit within the mapped ROS category, management prescriptions, and to move toward the Desired Future Conditions for a given management area.

Because of the diverse desires for outdoor recreation activities, recreational experiences may be affected by behavior or mode of travel by other recreational users in the same area. Examples of these effects are: mountain bikes and hikers, equestrian, biking and hiking, ATVs and hiking, fly fishing and water craft, alpine skiing and snowboarders, to name a few. Non-motorized recreationists seeking solitude from the noise of motorized activities or people desiring group or family associations may conflict with individuals seeking solitude or testing their independence and backwoods skills.

Because of the need to maintain existing recreation facilities, developed recreation capital investments are most likely to be applied to reconstruction of existing facilities rather than construction of new recreation sites. This is true for all alternatives even though Alternatives 4 and 5 allow for new facility development on more total acres than the other alternatives. All alternatives provide sufficient acres for new development to meet increasing demand except Alternative 1, which allows no new recreation development. With the high use levels currently at existing sites, further deterioration is likely. The most popular sites are already at design capacity and well exceed operational capacity on weekends and holidays (Table REC-5), while vacancies remain during other times. Development of new sites could help meet demand from the growing population, but may not reduce the over utilization of popular sites. Without an increase in developed settings visitors may be displaced during peak use periods. Typically these displaced visitors seek their preferred experience in an undeveloped site in the immediate vicinity of the developed site. This increases the potential for resource damage in the surrounding area and the impacts to other visitors.

Funding sources, in addition to appropriated dollars, are being used to improve or maintain to standard, developed recreation sites. Concessionaires, through special use permits, currently manage 97 percent of the developed recreation sites of the WCNF. This provides service to visitors and returns a portion of the fees collected in the form of heavy maintenance on facilities. Fee demonstration areas such as the Mirror Lake Scenic Byway and partnerships like Mill Creek Canyon also help the USFS improve developed recreation sites' quality by charging user fees and returning the money collected to protect the resources impacted by the uses. These funding sources are expected to continue and would be common to all alternatives.

Undeveloped recreation includes activities that occur outside of developed recreation areas in concentrated use areas where the objective is to protect and stabilize natural resources. It includes activities such as driving for pleasure, camping, hiking, viewing scenery, hunting, fishing, skiing, snowmobiling, horseback riding, mountain biking, ATV riding and rock climbing to name a few. These uses will continue to increase in intensity and resource impacts in all alternatives because of population growth.

Historically there has been a fairly clear distinction between "developed" and "undeveloped" recreation. However as user numbers continue to increase without concurrent increases in traditional developed facilities (such as campgrounds and picnic areas), the need for some kind of site development to protect resources in heavily used undeveloped camping and play areas

arises. Some increased use from undeveloped camping is due to overflow from developed campsites, but most is the preferred experience of the visitor. As visitors are displaced by other users competing for the same space, they may move to undisturbed areas expanding impacts to vegetation, watershed, and wildlife resources. Conflicts with resources result when preferred activities impact sensitive plants, animals, or watersheds. Site development could include such actions as hardening and designating existing undeveloped campsites to reduce impacts to soil and vegetation resources or installing toilets to address sanitation issues. More of this type of action is expected in the future with all alternatives except Alternative 1. Where these actions would occur varies by alternative mapping of prescriptions, in particular Prescriptions 4.4, 4.3, and 4.2. These actions may further displace some visitors who prefer little or no evidence of management. However if design of sites involves frequent forest users, we can reduce the displacement potential. Alternative 1 would have the greatest effect on undeveloped campers and other undeveloped activities because when impacts become excessive the site or area would be closed and rehabilitated.

Trails are important to undeveloped recreation use. They are critical for access to desired areas and often provide linkages to local communities. Maintenance levels affect speed or safety of travel while directional or informational signing affect visitor convenience, security, and dependence on self-reliance. New access points increase recreation use long term and increase impacts to previously undisturbed areas. There is no difference between alternatives with regard to total miles of trail open to foot and horse travel, however alternatives do differ in the miles of designated open routes for summer travel by vehicles, both motorized and mechanized. The primary difference is related to the amount and location by alternative of lands recommended for Wilderness and mapped as prescription 1.5. Trails within these areas that are currently open to mountain bikes, motorcycles, and/or ATVs would be closed to these uses but continue to be open for foot and horse travel. Table REC- 13A later in this section under the heading “Effects on Recreation from Inventoried Roadless Area Management,” displays the mileage affected in each alternative. This change could put additional pressure to allow or continue motorized or mechanical uses on other public or private lands. A reduction in available trail miles could also increase the density of those uses on trails remaining open to them, and may also increase user conflicts and management needs.

Trails can impact other resources by increasing sediment and pollutant delivery, affecting water and aquatic habitat quality. They also can fragment terrestrial habitat impacting some terrestrial species. Trails are also known vectors of dispersal for noxious and invasive weeds.

Recreation activities provided under special use permits occur in both developed and undeveloped recreation settings and involve both motorized and non-motorized opportunities. These uses do not vary by alternative with the exception of heli-skiing, which is discussed later in this section.

There is no difference between alternatives with regard to effects on the 351 currently permitted recreation residences. Management of these areas under permit must be consistent with direction contained in the Revised Forest Plan.

Summer Recreation

One of the main issues in recreation is the conflict between the experience of the non-motorized users when motorized use occurs nearby and when motorized users are in areas where they are not allowed. Non-motorized users do not like noise or the presence of motorized vehicles when they are experiencing outdoor activities and they do not like to see tracks, damage to the land, or hear the sound of motorized vehicles in areas where they are not allowed. The issue with motorized users is generally that they can cover significant distances relatively quickly and they do not want any reduction in the open-to-motorized routes. They often would like to see more trails available and more opportunities on loop travel ways. All Alternatives provide for motor vehicles allowed only on designated-open roads and trails.

The amount of trails and roads reduced in the alternatives is because of Recommended Wilderness. Alternative 1 would close 2 miles of roads available for motorized use. Of the 306 miles of trails that currently are open to motorized vehicles, 76 miles under Alternative 1 would be closed while Alternative 2 would close 7 miles.

The majority of non-motorized and motorized use occurs on roads and/or trails. Therefore acres of a particular recreation setting are not a good measure of differences between alternatives. Rather, miles of motorized and non-motorized routes (roads/trails) are a better way to compare differences between alternatives.

ROS provides guidance on how roads could be maintained and the resulting type of use for travel planning in the future. The ROS classification encourages a particular maintenance level for a road and a distinction is made in travel ways, by the design and ability to allow passenger car travel. In the State of Utah licensed vehicles can drive on all roadways that allow travel, whereas unlicensed vehicles are only allowed on primitive roadways that are not designed or maintained for passenger car travel. In all of the alternatives SPM denotes travel ways that are not maintained for passenger car use (primitive) and the area of SPM changes by alternative. Currently there are approximately 1,050 miles of primitive road (unlicensed vehicle are allowed) and approximately 500 miles of better than primitive roads that are design and managed for passenger car use under Forest Service jurisdiction on the Forest. Alternative 1 reduces primitive roads by two miles and in all of the other Alternatives the total miles of roads are not reduced, all though, the ROS category may be different. The key thing to understand is that the existing road and trail system is not affected by ROS except the guidance of how a road could be maintained as primitive or better than primitive. Trying to evaluate the Alternatives by the number of acres of ROS category can be somewhat misleading because the acres do not reflect the number of travel ways or tell you the entire characteristic of the travel way that lies in a ROS category area. The best way to compare the amount of change between the alternatives for ROS is by a visual evaluation of the ROS maps by Alternative compared to the existing condition.

In a visual comparison Alternative 7 manages the entire Forest the same as the existing condition except for the Ski Resorts where management changes from Roaded Natural to Rural because of anticipated higher day use such as mountain biking and hiking. For W/P and W/SPNM the Forest is being managed the same in all Alternatives except Alternative 4/1985 Forest Plan where the entire Wilderness was managed in W/P. For Urban and Rural ROS categories the

Forest would be managed the same in Alternatives 1-3 and 5-7 except on the slopes of ski areas in Alternative 7 as noted above and Alternative 4/1985 Forest Plan. There are no Urban areas in Alternative 4/1985 Forest Plan and part of the Rural areas coincide with the existing condition around Pineview and at the ski resorts. Other Rural areas are found in Ogden Canyon, Logan Canyon around the campgrounds, Mantua area, South Fork of Ogden Canyon, Causey Reservoir and the Soapstone area on the Kamas Ranger District in Alternative 4/1985 Plan. The effects of Alternative 4/1985 Forest Plan would be a higher level of facility development and social and managerial interaction in these areas. In the other Alternatives, the Rural areas outside of Pineview and the ski resorts are managed as Roaded Natural which has a lower level of facility development, etc.

The changes in Alternatives are marked by how roads, trails or areas could be managed by ROS categories. Alternative 1 has the greatest amount of SPNM because of lands recommended for Wilderness. See in this section “Effect on Recreation from Inventoried Roadless Area Management ” for information on trails and roads closed by Alternative. The effect of the Recommended Wilderness in Alternative 1 would be the increased probability of recreationists not being able to hear the sounds of motorized travel.

In the Eastern and Western Uintas Management Areas, Alternatives 2, 3 and 6 are similar because management in the North Slope, Kamas Front Range, Upper Setting and Cedar Hollow areas changes from SPM in the existing condition to RN. This change implies that roads in these areas would be managed at a higher maintenance level- for passenger cars as opposed to high clearance vehicles. Alternative 5 would make the changes mentioned previously and also would change the SPNM along the northern edge of the High Uintas Wilderness to SPM. Under Alternative 5 future project proposals could see an effect if new primitive roads are built. New roads would further expand the primitive road network resulting in acres of Wilderness potentially managed as W/SPNM. Alternative 4/1985 Forest Plan manages most of Eastern and Western Uintas Management Areas as RN except for Wilderness and the heart of the Lakes roadless area. The effect of Alternative 4/1985 Forest Plan is the potential reduction of primitive roads to comply with the RN characteristic of passenger car travel. The 1985 Plan envisioned many areas currently mapped as semi-primitive as being converted to Roaded Natural as a result of road construction associated with a large timber program. Alternative 1 changes the SPM of motorized trails to SPNM in MPC 1.5 recommended Wilderness areas.

The Stansbury Management Area’s east face is now SPM with some cherry stems of RN and is similar in the existing condition and for Alternatives 2-7 with some minor changes. Alternative 1 manages the area outside the Wilderness as SPNM except for some cherry stems of existing roads.

The existing condition and Alternative 7 manage the bench along the Wasatch Front from Ogden to Bountiful as SPM. In Alternatives 2,3, 5 and 6, these areas are managed as RN, which could reduce the amount of primitive roads on National Forest System lands. Alternative 4/1985 Forest Plan managed the bench as SPNM. If Alternative 4/1985 Plan is selected, managers would need to determine if the existing Forest roads that are in SPNM would continue to be managed as SPNM or change to SPM. The Monte Cristo area of the North Wasatch/Ogden Valley existing

road system is managed as SPM. In Alternatives 1,2,4,5, and 6 some these road systems would be managed as RN. Alternative 3 would manage the same area as SPNM.

Social Setting and User Densities

A more subtle difference between Alternatives, but important in light of ever-increasing numbers of users, is the implication of ROS mapping for social settings and future user densities. Within the ROS there are Recreation Opportunity Classes that are defined as implying some type of limits on numbers of users (See Appendix D-2). These are Wilderness/Primitive, Wilderness/Semi-Primitive Non-Motorized, and Semi-Primitive Non-Motorized. The Setting component "Social" for these Classes discusses various degrees of probability of solitude and evidence of other people. The Wilderness/Primitive Class only occurs within the High Uintas Wilderness and therefore is the same for all Alternative except Alternative 4, in which all Wilderness were mapped Primitive. The relative amount and location of the Semi-Primitive Classes varies by Alternative (see ROS Maps).

Given population growth and demand it is expected that many areas now meeting criteria for semi-primitive, without some type of management or restriction, would eventually exceed defined user densities. Opportunities for this type of experience would decrease over time. This situation is primarily true of areas accessible by road or trail and more so for roads or trails located close to population centers. It does not apply to inaccessible acreages well away from population centers or existing roads and trails.

The delineation of the Semi-Primitive Recreation Opportunity Classes puts in place a framework for future monitoring and management of user density levels. First, a baseline of actual user densities needs to be established for these areas. This is included in the Revised Plan Monitoring requirements. Then these findings need to be compared with the ranges for thresholds identified in the ROS Table in Revised Forest Plan Chapter 4a6. The actual thresholds for user densities that would trigger some kind of management action need to be tailored to the specific area. For example thresholds might be set higher for Semi-Primitive areas nearer population centers to accommodate the use patterns there and relatively lower for less accessible areas. The intent is to provide a conscious decision point on allowable user densities for some areas, rather than allowing user densities to grow unchecked everywhere as population grows. A number of options could be considered upon reaching identified thresholds. Education of users to modify behavior, initiation of permit systems, separation of uses in time (odd day/even day, etc.) and/or the option of amending the Forest Plan to change the ROS Class could be considered. A public process including users should be used to take these steps.

Winter Recreation

In winter, differences between alternatives and relationship to existing conditions are analyzed and displayed by available acres for Heli-skiing, Motorized, Non-Motorized, and Wilderness Non-Motorized uses (Table REC-12 and Figure REC-12). Alternatives reflect considerations including current District Travel Plan Maps, public comments on winter recreation conflicts, mapping of management prescriptions for each alternative, critical big game winter ranges, and mapping of existing winter motorized use. Recommended Wilderness acres (MPC 1.5) were mapped as non-motorized in winter in all Alternatives except Alternative 7. In this Alternative, MPC 1.5 areas currently open to winter-motorized use would remain open as interim

management and are mapped as winter motorized. The remaining MPC 1.5 areas in Alternative 7 are mapped as non-motorized.

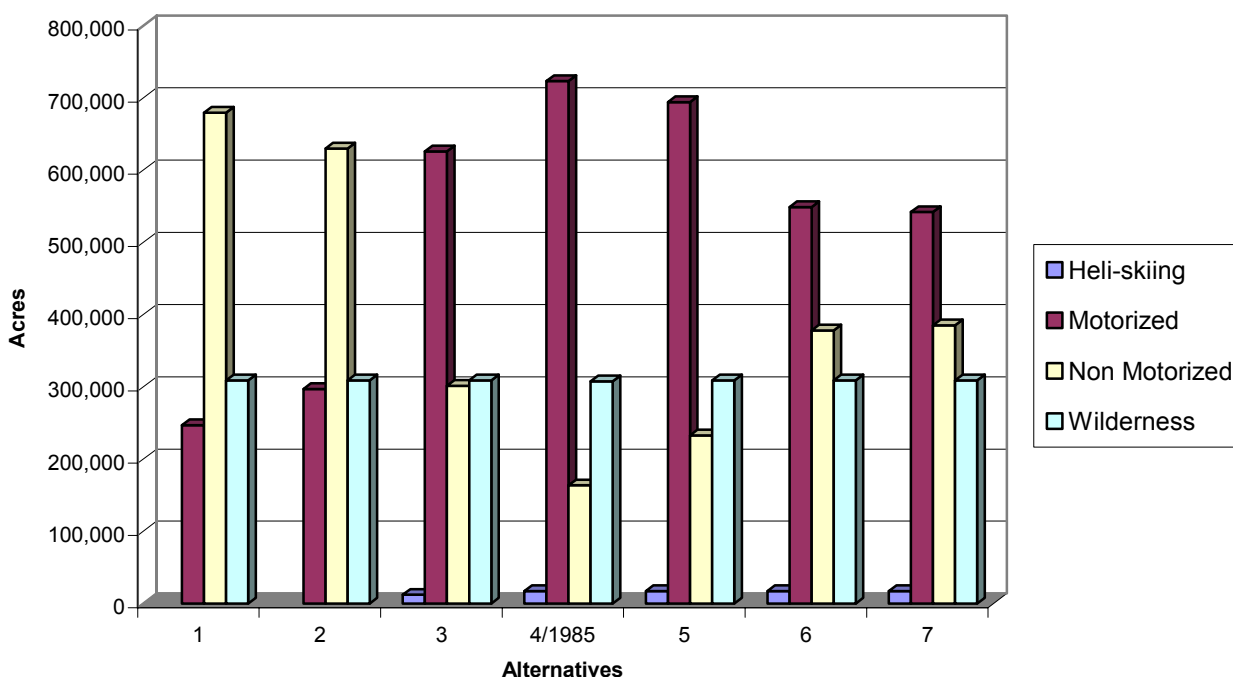
Table REC 12. Acres of Winter Recreation: Heli-skiing, Motorized, Non-Motorized, Wilderness by Alternative and Existing Condition (EC)

Winter Recreation	Acres of Existing Condition and Alternatives							
	1	2	3	4/1985	5	6	7 ¹	EC ²
Heli-skiing	0	0	12,000	17,000	17,000	17,000	17,000	17,000
Motorized	246,800	296,700	663,600	723,300	693,900	548,700	540,700	634,800
Non-Motorized	679,200	629,800	263,000	163,400	232,600	377,900	385,900	291,600
Wilderness	308,900	308,900	308,900	307,500	308,900	308,900	308,900	308,900

¹ Alt 7 Allows motorized use in areas currently open within Recommended Wilderness (Prescription 1.5)

² Existing Condition

Figure REC-4. Acres of Winter Recreation: Heli-skiing, Motorized, Non-Motorized, Wilderness by Alternative



For winter recreation, conflicts occur primarily between motorized and non-motorized uses. Factors affecting these two groups of users include access to plowed parking, distance that can be traveled, steepness of terrain and nature of vegetation, and availability and depth of snow. Conflicts between winter users are most pronounced at shared trailheads where access is limited by snowplowing. With the large size of the newer snowmobile trailers, available parking spots

fill up quickly on weekends and holidays. Parking is discussed under “Effects on Recreation From Roads and Access Management”. Snowmobilers can inherently cover very long distances not accessible to average non-motorized winter users. Therefore terrain closer to plowed parking, while required for both types of users, is especially important to non-motorized users.

Both groups do not equally perceive the winter use conflict. Some (though not all) non-motorized users are seeking a winter experience away from noise and emission of motorized equipment, while the non-motorized use itself generally does not interfere with the experience of the motorized user. Because of this, motorized users have expressed the desire to share terrain and avoid separation of these uses. They are concerned that closure of areas to separate uses will result in higher densities of motorized users in the remaining open areas. Given the rapid growth trend in winter motorized use, it is expected that motorized densities will be increasing even without any change in available acreage. In some instances, such as the Monte Cristo area of the Ogden Ranger District, motorized user densities are already a concern among users because of crowding and safety.

Non-motorized users have expressed the desire to have accessible terrain closed to motorized use so they can avoid the effects of motorized use (sound, smell, tracking of powder). Because of technology changes, terrain is no longer a major limitation for at least the most modern motorized equipment. Both groups are often seeking the same terrain, especially for untracked powder. Once an area is tracked by a snowmobile, the slope may be deemed un-ski able or at least undesirable by some backcountry skiers because of inconsistency between packed and powder snow making it difficult to ski.

In addition to winter motorized closures to provide separate non-motorized recreation opportunities, critical big game winter ranges are also closed to varying degrees by Alternative. See discussion under the section titled “Effects on Recreation from Wildlife Management” for a discussion of the relative proportion of total acres closed for this reason by alternative.

Effects on winter use are compared by the acres open and closed to snowmobiling and they vary by alternative (Table REC-12). Alternatives 1 and 2 are the most restrictive to motorized use reducing open areas by about 61% and 53% respectively from existing. Alternative 3 increases winter motorized access by about 4% over existing. Alternative 4 (1985 Plan) had about 12% more area open to motorized that currently exists in Travel Management Plans. Alternative 5 would open additional areas to motorized use adding about 9% to existing. Alternative 6 and 7 provide for some separation of uses to reduce conflicts reducing existing motorized areas by about 14% and 15% respectively. However, a large portion of the reduction (about 30,000 acres) is acreage along the very steep Wasatch Front of the Ogden Ranger District, which is currently “open”, but not used by snowmobilers. Therefore the usable snowmobile terrain in the existing condition is actually about 5% less than the acres shown and alternatives that close this area (1,2,6,7) have a 30,000 acre reduction that has no real effect on snowmobiling..

Winter Recreation Maps (see Map Packet) show opportunities, by alternative, for specific locations. As described above, Alternative 1 provides the least motorized opportunities. No snowmobiling would be allowed in Roadless Areas or Recommended Wilderness areas (MPC 1.5). This would result in the greatest decrease in acres available for snowmobiling, while

providing the greatest potential acres for non-motorized winter recreation. Alternative 2 provides slightly more winter-motorized opportunities and similar potential to Alternative 1 for non-motorized. In this Alternative snowmobiling is allowed on designated routes in Roadless Areas, making it very restricted in these areas. These two alternatives would have the greatest impact on motorized users. There would be an increase in density of motorized users (especially considering the growth trend in this use) within the available area, increasing conflicts among users competing for the same terrain. These Alternatives would increase the area available for non-motorized winter, however given the distance most non-motorized users can travel (5-10 miles round trip generally is a maximum for people of moderate fitness) much of the area would not actually be accessible or used.

Alternative 6 and 7 maintain the majority of existing motorized opportunities and allow snowmobiling in Roadless Areas. Motorized use is not allowed in Recommended Wilderness (MPC 1.5) in Alternative 6 but is in Alternative 7, and both Alternatives close selected areas to reduce conflicts between motorized and non-motorized user groups. This change may result in some minor increases in density of motorized users however; a large portion of the reduction (about 30,000 acres) is acreage along the very steep Wasatch Front of the Ogden Ranger District, which is currently “open”, but not used by snowmobilers. Alternative 7 would not allow winter-motorized use in a specific area between the Bunchgrass and Steep Hollow drainages within the Mount Naomi roadless area on the Logan Ranger District. This would decrease winter-motorized opportunities in this area which is valued by both groups of users. However in the event of an emergency, snowmobilers will be allowed to traverse a route from the higher elevation open areas to the bottom through the closed area and out to the highway. Alternative 7 closes several areas in the Eastern Uintas Management Area and an area between the East Fork Bear and Stillwater Fork in the Western Uintas Management Area that are open now but not used by snowmobilers.

Alternative 3 provides for a small increase in motorized recreation but would not reduce conflicts with non-motorized users through separation. Alternatives 4 and 5 provide the most motorized winter use. They do not close any Roadless Areas and open some existing big game winter range closure areas. However, the same acreage along the Wasatch Front, Ogden Ranger District is included as open and because of steepness, it is not actually expected to be used. These alternatives provide the least separation of uses to reduce conflicts so non-motorized users would continue to have a less satisfying experience than if there was some separation.

Alternative 7 winter motorized mapping (developed after public comment on the other six Alternatives) was specifically responsive to conflicts and concerns in the Logan Ranger District. In addition to the area discussed above, it includes several delineations of non-motorized designed to provide for separation of uses while continuing to provide motorized access to higher elevation areas where snow is available to motorized users for a longer time period each year.

Ski area expansion

A main issue with ski areas is whether to allow or not to allow ski area expansion on Forest System land. Those that support ski area expansion would like to have it considered on a case-by-case basis instead of having a Forest Plan amendment to change the boundaries. Those that oppose ski area expansion are concerned with decreased visual quality, decreased aesthetic

qualities, loss of natural qualities, degrading watershed and wildlife conditions, and increased development that may accompany expansion of ski areas on Forest System lands.

Method of analysis for ski area expansion involves comparing alternatives if ski area expansion is allowed or not.

The allocation of additional lands for ski area expansion is provided in Alternative 5. All other alternatives provide continuation of permits with existing acreages. Generally, then, for Alternatives 1, 2, 3, 4, 6, and 7, effects to ski areas are very similar with no opportunity for expansion on National Forest System lands beyond existing permit boundaries. Ski areas might propose additional development within existing boundaries, but these are site-specific decisions (not Forest Plan decisions) addressed in Master Development Plans. Determination of consistency with Forest Plan direction is a requirement of all site-specific analyses.

Heli-skiing

The issue is the conflict in the experience between winter backcountry users and heli-skiers. Those that support heli-skiing believe that it allows for a diverse and balanced use of the land. Supporters feel that it does not harm the environment; noise is of minimal impact, is a safe means of providing backcountry ski experience and supports the local economy. Those who oppose heli-skiing say there are impact to wildlife, is enough opportunity for heli-skiing on private land, and it degrades the experience of winter backcountry users, particularly in the Tri-Canyon area. Method of analysis is to compare alternatives by the amount of areas where heli-skiing is allowed.

Alternatives 1 and 2 do not allow heli-skiing, due to locations of Recommended Wilderness. For all alternatives that allowed heli-skiing impacts from heli-skiing operations include noise levels affecting feeling of solitude and the amount of self-reliance necessary to access backcountry ski areas. Heli-skiing does provide an opportunity for skiers to enter the backcountry who might otherwise not be able to enjoy the benefits of the fresh powder slopes. In Alternatives 4, 5, 6, and 7, Heli-skiing is allowed as defined in the existing special use permit. Alternative 3 closes some areas and opens others, but has a reduction in acres as compared to the existing permit acres by opening Big Cottonwood Canyon in areas that are currently closed north of Butler Fork, and closes the Gobbler's Knob area.

Effects on Recreation from Roads and Access Management

Roads and access management play a major part in both developed and undeveloped recreation opportunities by affecting the type of experience a recreationist may desire. Existing District Travel Management Plans, road maintenance levels, non-motorized and motorized trails and public comments were used to map summer ROS categories by alternative. There is a direct correlation in the types of roads or trail administer by the WCNF and the ROS category. Roads with a maintenance level 2 are classified as primitive (i.e., the high clearance vehicles, rugged routes, allow non-license ATV use) and fit into the SPM category. Roads with higher maintenance levels are classified as better than primitive (i.e. surfaced, smooth, maintenance levels 3, 4, 5, designed and used by standard passenger cars.) and fit into RN – Urban categories. Therefore ROS provides guidance on how roads could be maintained and the resulting type of

use for travel planning in the present and future. In the State of Utah licensed vehicles can drive on all roadways that allow travel, whereas un-licensed vehicles are only allowed on primitive roadways that are not designed or maintained for passenger car travel. Changing the maintenance level of a road could have a negative effect on non-licensed recreation vehicle users and the routes that are available to them. Maintenance level also affects the type of experience described in an ROS category by changing the skill level requirement, speed, lack of loop and connecting routes and other sought after benefits. Trails on the other hand are either open to motorized travel or closed. All motorized trails are being managed as SPM and non-motorized trails are managed SPNM. In the following discussion a comparison of alternatives is made in how the changes in motorized routes would affect a recreationist and their desired setting and experience.

Summer Recreation

There are two differences between alternatives with regard to roads and access management's effects on summer recreation use they are, new road construction, and road and motorized trail closers.

First new road construction from timber harvest, and oil and gas exploration, and development would provide additional miles of road available for recreational access. Alternative 5 provides the most mileage with a projected 63 miles of new road construction. Alternatives 3 and 4 each provide 49 additional miles while Alternatives 6 and 7 provide 16 and 18 miles respectively. Alternatives 1 and 2 provide the least new roads with a projection of 3 and 9 miles respectively. The effects to recreation are the possible addition of more motorized travel ways and the increase of the sights and sounds of motorized use to those desiring a W/P, W/SPNM, and SPNM setting. Alternative 5 could increase the number of miles of road in timber harvest areas mainly in the North Slope of the Eastern Uintas Management Area and in the Cache-Box Elder and North Wasatch-Ogden Valley Management Areas around Monte-Cristo and Hardware Ranch. With the potential increase of miles of motorized routes SPNM and W/P and W/SPNM is affected in the North Slope and High Uintas Wilderness. By moving motorized routes in closer to the W/P boundary it could expand the area of W/SPNM during project level analysis. Road construction would affect Alternatives 3, 6 and 7 in the North Slope areas. Alternative 4/1985 Forest Plan would affect the North Slope, Cache-Box Elder and Wasatch-Ogden Valley Management Areas with the potential new construct of roads.

The second difference between alternatives for roads and access effects on recreation is the closure of roads as a result of Wilderness recommendation. Alternative 1 would close 2 miles of Roads available to motorized use. Of the 306 miles of trails that are currently open to motorized vehicles, 76 miles under Alternative 1 and 7 miles under Alternative 2 would be closed. There are no trail or road closer from Recommended Wilderness in the other alternatives. The effects of these trail and road closers would be the increase of SPNM area thus potentially expanding the opportunity of solitude from the sites and sounds of motorized travel in Alternatives 1 and 2.

Winter Recreation

The primary effect of roads and access management on winter recreation is the plowing of roads and parking for both motorized and non-motorized winter activities. Snow plowing of roads and parking is generally a jointly funded effort with the State of Utah Parks and Recreation and/or

the Utah Department of Transportation. The Forest Planning process highlighted the need for improved coordination and increases in the availability of plowed areas to provide for separation between motorized and non-motorized uses in some areas. Depending on the site-specific details, this may require further environmental analysis. Decisions about this site-specific need are not appropriate within the Forest Plan process. Therefore road and access management effects in winter do not vary by alternative.

Effects on Recreation Management from Vegetation and Fuels Management

Effects may be short or long term depending on the activity and could include increased noise and smoke levels, conflicts with logging trucks and visitors using the same roads in summer or winter, displacement of wildlife affecting viewing opportunities, and area restrictions or closures during operations. Hunting opportunities may be impacted short term due to closures, but may benefit long term from successful habitat treatments.

Longer term effects relate mostly to changes to the natural setting due to vegetation removal and road construction. Vegetation removal could have impacts to the scenic integrity visitors expect. It also may increase motorized trespass where undergrowth is removed or temporary roads are constructed. These roads may also benefit recreation if opened to travel.

Management prescription areas that emphasize recreation (4.1-4.5) do not have planned timber harvests, however some harvest may be allowed in prescriptions 4.3 and 4.4 only in Alternatives 3, 4, and 5. Vegetation treatments are allowed in all alternatives except Alternative 1, but would need to meet recreation and scenery management objectives. Harvests may occur in prescription categories 5.1, 5.2, and 3.2 where recreation is also allowed. Effects from these activities would be greatest in Alternative 5; less in 2; and least and similar in Alternatives 3, 4, 6, and 7.

Fuels management effects on recreation are similar to the preceding effects. Alternative 1 may have the greatest effect due to the lack of active fuels management. This may cause an increase in fire intensity and extent, creating a more visible and long lasting change to the setting. The degree of these effects is difficult to determine. Prescribed fire has some level of predictability for time, location, and intensity that may decrease the short-term impacts to visitors. Occurrences of wildland fires are not predictable under any alternative. These effects are also complicated by the fact that some visitors may accept impacts from wildland fire, but not prescribed fire.

Effects on Recreation From Livestock Grazing

Effects on recreation from livestock grazing generally include visual impacts (removal of vegetation tops and remaining stubble, trampled vegetation and streambanks, manure, fences and other range improvements), auditory impacts (sounds of domestic livestock, especially sheep), and olfactory impacts (smells of animals and animal wastes). These are more pronounced where recreation use in livestock allotments is focused on a less human influenced or “pristine” setting expectation, such as within the High Uintas Wilderness area. Decisions for livestock grazing made in Forest Planning generally will have little effect on recreation given that changes to livestock grazing management that would affect recreation are implemented through allotment

management planning and permit actions. There will be little difference in effects on recreation from grazing by alternative with the exception of Alternative 2. This is because while alternatives 1, 3, and 6 identify differing amounts of suitable range, they do not close the unsuitable areas because they are scattered throughout active allotments. In Alternative 2, 26,000 acres of contiguous watersheds are closed to livestock grazing so any existing impacts to recreation use in these watersheds would be eliminated.

Alternatives 1, 2, 6, and 7 close vacant allotments to varying degrees, but because livestock do not currently use these allotments, no effects would be noted for recreationists. Alternatives 1, 2, and 6 have potential for future reduced livestock/recreation conflicts since these alternatives allow for the closure of Gilbert Peak, Henry's Fork-Hessie Lake, and Red Castle allotments should permits be voluntarily waived without preference. Alternative 7 would allow for these, as well as the East Fork Blacks Fork, West Fork Blacks Fork, East Fork Bear River, and Stillwater allotments to be closed, again only if permits are waived without preference. Should these allotments be closed at some point in the future, there would be consequent reduction in recreation user - livestock interactions in the Uinta Mountains and High Uintas Wilderness area.

Effects on Recreation from Inventoried Roadless Area Management

Currently large portions of Roadless Areas provide recreation opportunities in undeveloped areas where the setting is largely unmodified (i.e., semi-primitive). The exception to this is where roads are cherry-stemmed into these areas (see Appendix C-2). The majority of roadless acres provide recreation opportunities with relatively high levels of solitude and self-reliance, and less opportunities with visitor comforts, feelings of security, and social interaction. Access may be limited to trails in Roadless Areas and this limitation increases the sense of remoteness and decreases the opportunities for social interactions. Recreation developments are generally limited and most visitor management is at trailheads. The physical setting is best described as naturally evolving. There are little or no recognizable impacts from past timber harvest and vegetation treatments.

Summer Recreation

Where Roadless Areas are mapped with prescription 1.5, Recommended Wilderness, the ROS Class is Semi-Primitive Non-Motorized (SPNM). These areas would not allow either motorized or mechanized travel in summer. The amount of currently open motorized roads and trails that would be closed to motorized and mechanized (mountain bikes) uses varies by alternative. Alternative 1 is the only alternative that would require road closure with 1.9 miles in the Lakes Roadless Area and 0.4 miles in the Stansbury Mountains for a total of 2.3 miles. Table REC-13a displays by alternative the miles of motorized trails in Roadless Areas that would be closed to motorized and mechanized uses.

Table REC-13a. Motorized Trails within Recommended Wilderness that would be closed to motorized and mechanized use by Alternative

Motorized Trails Closed by Recommended Wilderness (Miles by Alternative)							
Roadless Area	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7
High Uintas	15.2 ¹	0	0	0	0	0	0
Lakes	11.1 ²	4.5 ⁶	0	0	0	0	0

Motorized Trails Closed by Recommended Wilderness (Miles by Alternative)							
Roadless Area	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7
Stansbury Mtns.	24.9 ³	0	0	0	0	0	0
Twin Peaks	2.7 ⁴	2.7 ⁴	0	0	0	0	0
Lewis Peak	16.5 ⁵	0	0	0	0	0	0
Willard	6.0 ⁵	0	0	0	0	0	0
Total	76.4	7.2	0	0	0	0	0

¹ Broadhead, Deadhorse ATV, Little Deer Creek, Lost Lake, Slate Gorge, Trail Creek, Wolverine ATV

² Box Canyon, Hoyts, Silks Basin, Slader Basin, Swifts Canyon ATV, White Pine Creek Trail

³ Abbots Fork, Stansbury Front, Davenport Canyon, East Hickman Canyon, Martin Fork and West Canyon

⁴ Mineral Fork Trail

⁵ Wasatch Crest Trail

⁶ Box Canyon, Hoyts, White Pine Creek Trail

There is an increasing demand for motorized recreation including camping and trail use. Closure of trails to motorized use in Alternatives 1 and 2 would result in displacement of those motorized trail users and especially in Alternative 1 could result in increased densities of motorized users on the remaining open trail system.

Wilderness or Recommended Wilderness would affect mountain bike use in several alternatives. Table REC-13b for mountain bike trail mileage is an estimate. Some trails are open to mountain bikes such as in the Upper South Fork roadless area (because all Ogden Ranger District trails allow mountain bikes), but receive relatively low mountain bike use. Therefore the actual effect on users would be less than the total stated miles.

Table REC-13b. System Trail Mileage Allowing Mountain Bike Use Affected by Recommended Wilderness

Trails Closed to Mountain Biking from Prescription 1.5							
Roadless Area	1	2	3	4	5	6	7
Burch Creek	6.5	NA	NA	NA	NA	NA	NA
High Uintas	12.6	7.8	7.8	NA	NA	5.9	5.9
Lakes	40.3	24.6	0	NA	NA	9.5	9.5
Lone Peak	0	0	NA	NA	NA	NA	NA
Mount Aire	11.3	NA	NA	NA	NA	NA	NA
Mount Naomi	33.5	15.5	3.8	NA	NA	3.8	NA
Mount Olympus	8.8	0	0	NA	NA	NA	NA
Nobletts	0.5	NA	NA	NA	NA	NA	NA
Stansbury	13.9	0	0	NA	NA	NA	NA
Twin Peaks	6.4	0	0	NA	NA	NA	NA
Upper South Fork	27.5	NA	0	NA	NA	27.5	27.5
Wellsville Mountains	0	0	0	NA	NA	0	NA
White Pine	5.3	5.3	NA	NA	NA	NA	NA
Widdop Mountain	0	NA	NA	NA	NA	NA	NA
Total	166.6	53.2	11.6	0	0	46.7	42.9

Mountain bike use is not allowed in Wilderness or Recommended Wilderness. Therefore Recommended Wilderness that includes trails currently open to mechanized equipment would require closure of those miles to that use. Alternative 1 has the most (167 miles) followed by Alternatives 2, 6, 7 and 3. Alternatives 4 and 5 have no Recommended Wilderness and would not effect mountain biking.

Winter Recreation

Where Roadless Areas are mapped with prescription 1.5, Recommended Wilderness, the Winter Recreation opportunity is non-motorized with one exception. In Alternative 7, winter motorized use is allowed on currently open areas within prescription 1.5 located within the Lakes and High Uintas roadless areas. In Alternatives 1 and 2, which have the most acreage of Recommended Wilderness, snowmobiling use within recommended Wilderness 1.5 MPC is prohibited and would displace current users and increase winter-motorized use in other areas. Alternative 1 also prohibits snowmobiling in other roadless areas (not recommended for wilderness) and Alternative 2 limits snowmobiling to cherrystemmed roads within roadless areas. These alternatives offer the most non-motorized winter opportunity in roadless areas. Alternatives 4 and 5 have no Recommended Wilderness and do not affect snowmobiling in those areas. Table REC-12 displays acres of winter recreation opportunities by alternative.

Wilderness additions in the Tri-Canyon area in Alternatives 1 and 2 would *eliminate* heli-skiing opportunities. Alternative 3 would eliminate the Gobbler's Knob area from heli-skiing because of Wilderness recommendation there, but would substitute an area in Big Cottonwood Canyon for this acreage, allowing heli-skiing to continue in the Tri-Canyon area.

Effects on Recreation from Soil and Water Resources and Aquatic and Semi-Aquatic Species

Soil and Water Resources, Aquatic and Semi-Aquatic Species Management can directly affect recreation opportunities and quality of experience. These may include fish and watershed management actions that restrict access, development and selected activities. Management prescription categories with an aquatic and semi-aquatic species as their focus include 3.1, 3.1a, and 3.1w. Alternatives 7, 6 and 2 provide the highest amount of acres in aquatic and watershed emphasis area (MPC 3.1, or 3.1a and 3.1w) and Alternative 5 has the lowest amount of acres. Levels of recreation development would still remain low and would be proposed to meet management objectives related to watershed and aquatic habitat protection or improvements. Alternative 1 has the potential for the greatest impacts to recreation, because Alternative 1 emphasizes natural processes with minimal human intervention. This may result in either eliminating or reducing human activity where impacts on watershed and aquatic habitat are occurring. Because a high percentage of developed and undeveloped sites are located within floodplains of most drainages this may result in a number of these facilities being closed and removed from operation. This would reduce the recreational opportunities on the Forest and limit the campsites accessible to the public. Visitors are drawn to water and impact riparian vegetation and aquatic habitat and in some cases this causes a loss of watershed function. Impacts to riparian areas and aquatic resources are a particular concern.

An example of the effect is shown by campsite surveys on the Logan Ranger District where over 50 percent of the identified undeveloped recreation camps as well as some trails would be closed. This would be consistent throughout the entire forest because of difficulty in managing people who want to recreate adjacent to water and shade, resulting in impacts to water resources. Alternative would require a very active law enforcement program. All of the other alternatives rely on an array of active management tools and not closures to general forest areas as the primary means to resolve impact to Soil and Water Resources, Aquatic and Semi-Aquatic Species Management from recreation activities.

In Alternative 7 new developed recreation sites will be affect in MPC 3.1a and 3.1w. For 3.1a and 3.1w, new recreation development is not allowed. Though the locations for a majority of the WCNF existing sites are located in 3.1a and 3.1w areas, new sites would need to be built in other MPC areas that allow construction. This may cause these upland sites to be used less as people generally seek sites next to water where water recreational activities can take place. These upland sites would probably be less expensive to develop and maintain with less concern for flooding and riparian damage.

Effects on Recreation from Wildlife Management

Except for site-specific effects not addressed in this Plan revision such as seasonal road closures in cooperation with State wildlife managers, wildlife management has little effect on recreation in summer. In winter however, needs for protecting critical big game winter ranges from disturbance by motorized uses can directly affect winter recreation opportunities. Closures to winter motorized uses on big game winter ranges vary by Alternative. In some cases the closed areas are steep, south facing with limited snow cover and may not be ideal for snowmobiling. However in other cases, especially with elk winter range which tends to extend higher in elevation than deer, these areas are desirable for snowmobiling. Table Rec-14 shows by alternative, how winter recreation is managed in big game winter ranges and the percent of total non-motorized area closed specifically for big game winter range reasons.

Table Rec-14 Winter Recreation in Big Game Winter Range

	Alt 1	Alt 2	Alt 3	Alt 4 1985 Plan	Alt 5	Alt 6	Alt 7	EC
Total Non-Motorized Acreage	988,000	938,800	571,900	470,900	541,600	686,800	694,800	600,700
Non-Motorized Acreage within Winter Range	222,800	222,100	136,700	88,300	129,500	166,700	190,700	149,100
Motorized Acreage within Winter Range	22,400	22,600	108,600	141,700	115,700	78,600	54,500	96,100
% of Total Closure for Winter Range	23%	24%	24%	19%	24%	24%	27%	25%

Compared to the existing condition, Alternatives 1 and 2 would have the greatest effect on winter motorized recreation in conjunction with closures for big game winter range. The proportion of these areas actually desirable for snowmobiling is not known. However, the closures for winter range are relatively small compared to closures for other reasons such as wilderness recommendation and roadless area maintenance that would result in higher user densities in the remaining open areas with increased crowding, conflicts and safety concerns. Alternative 6 or 7 would have the next greatest effect but since the total area closed is significantly less than Alternatives 1 and 2, increased user densities would not be expected to be as significant. Alternative 7 designates several “through routes” for snowmobilers to move through big game winter range to higher areas desirable for that use. Alternatives 3 and 5 close less areas to motorized use in big game winter range than other Alternatives except 4. Given the relatively large amounts of area open to this use noticeable increases in user densities specifically because of closures for big game winter range would not be expected in these Alternatives.

For non-motorized winter recreation opportunities closures to motorized use within big game winter range would create more areas with separation of use with directly proportional to the acreages shown as non-motorized in Table REC-14. However, the areas vary in their desirability for winter recreation activities for the same reasons described above- steep often south facing slopes with variable snow conditions.

Effects on Recreation from Threatened, Endangered and Sensitive Species Management

Effects to recreation would be consistent in all alternatives due to the Endangered Species Act, Forest Service direction, and policy which require listed and sensitive species be protected. Impacts from management of these species may include seasonal road restrictions to total closures, vegetation manipulations to improve habitat, or structural improvements. Recreation activities likely to be affected can include: closure of rock climbing areas to protect sensitive plants, removing camping where it impacts Bonneville or Colorado River cutthroat trout, cave closures to protect cave resources, and allowing no net increase of groomed trails or snow packing from winter recreation activities to protect lynx habitat. Such impacts could significantly increase if species currently not listed or listed as Forest Service Sensitive were elevated to Fish and Wildlife Service Threatened or Endangered classifications.

Effects on Recreation from Special Management Areas

These areas are managed to maintain the setting characteristics for which they were established. They are represented by MPC 2.4 through 2.7. Acres within this category decrease opportunities for new recreation developments and access while increasing opportunities for self-reliance, viewing scenery, and educational opportunities. ROS opportunities will range from the Semi-Primitive Non-Motorized category to Rural settings. Motorized use will be restricted to existing routes. High levels of visitor management may be required to protect the resource of concern and interpret the resource values. Alternative 1 provides the most acres in these categories. About half as many acres are in Alternative 2 as Alternative 1. Similarly there are about half as many acres in Alternative 6 as in 2. Alternative 3 has slightly fewer acres than Alternative 6, while Alternative 5 has about one third of the acres of Alternative 3.

Effects on Recreation from Oil and Gas Activities

The following description of effects refers only to the area identified as the “Appeal Settlement Zone” as described in Topic 9 – Oil and Gas. It is estimated to be about 68,300 acres.

The degree to which oil and gas activities such as exploratory drilling, oil and gas field development and other activities involving the construction of roads, well sites and other facilities would affect forest visitors depends on the type of opportunity, experience and setting present. The impacts associated with the drilling of a single exploratory well could adversely affect the setting associated with the backcountry and non-motorized opportunities. These impacts would be of relatively limited area, short duration, and once drilling and reclamation is completed the impacts would not be significant. However, some evidence of human activities would be present for a long period. These impacts may be of relatively high intensity and long duration if they are associated with oil and gas field development and the subsequent production of oil and gas. The impacts associated with a producing oil and gas field could last 20-30 years.

For recreation opportunities and settings associated with roads and vehicular use, the impacts will likely be less significant. In many cases oil and gas activities can be shielded from areas popular for recreation use so development is less evident to visitors. New or improved roads constructed for oil and gas activities could enhance motorized recreation activities, if after site-specific analysis they remain in place and open. In the case of a non-productive exploratory well, the road and well pad may be decommissioned and reclaimed or the road could be managed as open for new access. A producing oil and gas field would have a system of well-developed roads such as those present in the oil fields on the Mountain View Ranger District. In that case, visitors would experience some oil and gas-related traffic. In all of the alternatives but Alternative 4, the majority of the Appeal Settlement Zone is mapped as semi primitive non motorized for summer recreation opportunities. Site-specific analysis would be required to determine the future disposition of roads, unless already specified by management prescription

Short-term noises of drilling and the potential long-term noise from pumping and odors of gas production could negatively affect users near an oil production site.

The decision being made in the Forest Plan affects new leases not existing ones. In all alternatives (except Alt 4) an area of existing leases, the Table Top Unit, could be explored and result in effects to recreation opportunities and settings. The degree to which the Table Top Unit is explored is affected by whether or not new leases could be issued and under what stipulations.

Though Alternative 1 does not allow new leasing in the Appeal Settlement Zone, development of existing leases within the Table Top Unit could affect the primitive recreation experience. The primitive recreation setting could be affected on an estimated 20 acres because of oil and gas exploration activities. Once existing leases expire, the area would be unavailable for leasing since the majority of this area would be recommended as Wilderness. Alternative 2 is very similar. Again, development of existing leases within the Table Top Unit could affect the undeveloped recreation setting on about 20 acres. Once existing leases expire, leasing

availability in areas recommended for Wilderness is precluded. On remaining available acres, new leases could be issued, but surface occupancy would not be allowed. No surface occupancy would maintain the undeveloped recreation setting.

Alternative 3 precludes leasing availability in areas recommended for Wilderness in the future and does not allow new leases with surface occupancy in areas managed for undeveloped and backcountry recreation values. The semi-primitive nonmotorized setting would be maintained within the majority of the area. Additional new leases could be issued outside the areas listed above with stipulations applied to protect sensitive resources. An estimated 10,400 acres are available under Standard Lease Terms. Oil and gas activities are estimated to disturb about 75 acres. Some of the effects to recreation opportunities could last 20-30 years because of field development. Some development is predicted within the Table Top Unit. If the development occurs within semi-primitive nonmotorized settings, these areas could be significantly affected.

Alternative 4 does not make a leasing decision. Because lessees would not be able to effectively develop a field should one be discovered due to nearby unleased parcels, future activities are not likely. No effects to the recreation setting are expected.

Alternative 5 would provide for leasing with standard lease terms and therefore provide the greatest opportunity for full field development. Oil and gas activities are estimated to disturb about 105 acres. In areas managed as semi-primitive or for backcountry recreation values such as sights and silence associated with solitude would be significantly affected. Motorized recreation could benefit from additional access, if new roads are managed as open. Some of the effects to recreation opportunities could last 20-30 years because of field development.

In Alternative 6 new leases issued as a result of the leasing decision made in the plan revision would not allow surface occupancy. However, existing leases in the Table Top Unit that expire would be immediately renewed in areas not precluded by management plan direction. Leases would be renewed in areas managed for motorized undeveloped recreation values and terrestrial habitat. Within this area because of the Controlled Surface Use stipulation applied to areas with high or moderate scenic integrity level, activities would be shielded to visitors, which would lessen the effects to recreation. In the remainder of the area the effects to recreation would be minimal because of no surface occupancy.

Alternative 7 would preclude leasing on 20,400 acres recommended for Wilderness. On the remaining 47,900 acres available for leasing, surface occupancy would be allowed on 27,000 acres. Of this acreage, oil and gas activities are estimated to disturb about 85 acres. Some of the effects to recreation opportunities could last 20-30 years because of field development. Some development (included in the 85 acre estimate) is predicted within the Table Top Unit because of existing leases and new leases being offered with surface occupancy.

Most critical to the recreational experience are those acres managed for a backcountry or non-motorized experience (Management Prescriptions 4.1 and 4.2). The majority of area managed for these values is protected by a no surface occupancy stipulation. On the remaining portion oil and gas leasing would be allowed with a controlled surface use stipulation that would be strictly applied to locate or shield oil and gas activities from visitors. Temporary road construction

would be allowed for operator's access and for the life of the well. Though only administrative use would be allowed, new roads may temporarily affect the recreation experience of non-motorized users. Restoration activities would return to area to a non motorized setting.

Environmental Consequences for Ski Areas

Effects on ski areas from Roadless Areas management

Alternative 1 recommends considerable additional Wilderness or non-motorized roadless prescriptions adjacent to or near all ski areas. Future expansion would not be possible for ski areas if Wilderness protections were put in place in adjacent areas. In Alternative 2 additional Wilderness is recommended in White Pine limiting future expansion for Snowbird. Roadless prescriptions near Brighton, Alta, Solitude, and Snowbasin would not allow new road construction and would limit motorized access to only administrative use for ski areas' maintenance or internal development. In Alternatives 3, 4, 6 and 7 Roadless Areas adjacent to all ski areas are protected for watershed, wildlife, or backcountry non-motorized recreation purposes, which would limit motorized access into the ski areas for work.

Effects on ski areas from fire/vegetation management

Wildland fire use is not allowed in ski areas in any alternative. While prescribed fire could be allowed, high property value and potential control issues make it unlikely that this method for treating vegetation would be selected. Mechanical treatments would be preferred to reach desired scenery or vegetation objectives.

In areas adjacent to ski areas vegetation management through the use of prescribed fire is potentially applicable for all alternatives, although mechanical treatment would be more likely. Wildland fire use adjacent to a ski area is allowable, though unlikely. Any threats to high property value would be mitigated rather than suppressed. While Alternative 1 stresses reliance on natural processes for meeting vegetation management and most ecosystem needs, if fire starts were near a ski area, they would be carefully monitored, and threats to life and property would be suppressed.

Effects on ski areas from scenery management

Within ski area permit boundaries, the ski area will be consistently managed in a Resort Natural Setting Landscape Character Theme (LCT) and a High Scenic Integrity Objective (SIO) for Alternatives 1-3 and 5-7. Under Resort Natural Setting LCT the management of the landscape will change from current management, which is defined as acceptable degrees of deviation from a natural landscape to management for positive human alterations to the landscape. To maintain a High SIO structures would be thematic in context within the resort boundaries and harmonize with the form, line, color and texture of the natural setting. Vegetation and landscape islands would be incorporated into future parking designs and reconfigurations to minimize the expanse of the parking lots.

Alternative 4/1985 will manage the landscape in a “Natural” LCT using degrees of acceptable change. Management of the base of the ski would be in a Low SIO and the slopes of the permit would be managed as Moderate SIO which would continue scenery management as it is currently, except with a change in terminology. See Appendix D-4 allocation framework Scenery Management System for more details for LCT and SIO descriptions. Alternative 5 expands the LCT of Resort Natural Appearing to match the proposed permit area expansion. Even though the LCT of adjacent landscapes to the ski areas change by alternative, there would be no effect to scenery because of the sensitivity of watershed.

Effects on ski areas from wildlife and fisheries management

No difference across the alternatives in the effect to ski areas from fish and wildlife management. Ski areas would need to meet the intent of conservation agreements, in-stream flows, and other standards, guidelines, and laws that provide protection for fish and wildlife species and to mitigate effects of any project proposal. Costs for future development at ski areas would be an effect to the ski areas.

Effects of ski areas from watershed and soil management

Any development or modification proposal for ski areas would need to meet soil and watershed conservation practices, within existing boundaries as in Alternatives 1, 2, 3, 4, and 6, or with expanded boundaries as in Alternative 5. Mitigation of effects to soil and watershed would need to be applied, which will incur costs to the ski areas for implementation of projects.

Cumulative Effects

The method of analysis is to described the cumulative effect issues, describe the cumulative effect area and the time frame for analysis, identify past, present and reasonably foreseeable actions.

Issues

The main issue identified under recreation involves increasing conflicts between and among users of motorized/mechanized vehicles (ATV’s, snowmobiles, helicopters for skiing, ski area permit expansion to adjacent areas, and mountain bikes) and non-motorized recreation.

Cumulative Effects Area and Time Frame

The cumulative effect area in within approximately 2 hours of the main population centers of Salt Lake City, Ogden, Logan, Tooele and Park City that provides the majority of the recreation users on the Forest. The time frame is from the previous planning period through the next planning period or approximately 10 to 15 years before and after the present time.

Past, Present and Reasonably Foreseeable Actions

The environmental consequence section describes effects to recreation from various topic areas. Of these topic areas, the primary topics that could cumulatively affect recreation management are from other recreation uses; Roads and Access; Vegetation and Fuels Management; Livestock Grazing; Inventoried Roadless Areas; Soil, Water, Aquatic, and Semi-Aquatic Species; Wildlife

Management; Threatened and Endangered Species; Special Management Areas; and Oil and Gas Activities.

Cumulative Effects from Recreation on the National Forest

Population Growth along the Wasatch Front has increased dramatically during the last two decades. The Greater Wasatch Area (GWA) Stretches from Nephi to Brigham City and from Kamas to Grantsville. The GWA is currently home to 1.7 million residents, which make up 80 percent of the State's population, making Utah the sixth most urbanized state in the nation. The population of Utah is expected to increase to 3.3 million in 2020 with 2.5 million living in Davis, Salt Lake, Utah, and Weber Counties. The youth population will continue to be the largest age group in the state (Utah, State of. 2002b). The cumulative effect of increased population is high demand for outdoor recreation opportunities provided in an alpine setting, which the WCNF provides for with easy access from major population centers. This growth has pushed urban development closer and closer and in many cases directly adjacent to public land boundaries. These public lands provide the growing population a place to go to recreate and enjoy a relative pristine mountain setting. This population growth, coupled with new technologies, is having a profound effect on the surrounding Public Lands. As the population increases, the niche that the WCNF provides in the recreation opportunity spectrum is being increasingly burdened.

Increased use has required the Forest Service to reconstruct and harden a significant number of picnic and campsites in addition to making them all more accessible to all members of the public. These modifications in additions to many other factors have helped to change the desired experience for many recreationists. Other public agencies and local communities including private individuals have developed campgrounds, parks, picnic sites and recreation facilities, but these are typically at lower elevations and primarily see use during the spring and fall. These facilities meet many people's recreation needs but do not always fill the desired alpine recreation experience. As temperatures increase during the summer, most of these people flock to the Forests for the alpine experience and the subsequent relief from the heat.

Technology is continually making improvements to All Terrain Vehicles (ATV), Snowmobiles and Mountain Bikes, which changes the mechanism and its ability to traverse National Forest System Lands. In 2000, the number of off-highway motorcycles, ATV's, snowmobiles and recreational 4X4s in Utah is estimated at almost 163,000 (Fisher et al. 2001). Technology is continually making improvements to ATV, snowmobiles and mountain bikes. ATV's are more powerful, have better suspensions and have better traction than they have ever had before. The cumulative effect of the increase in technology is that snowmobiles have been improved to the point where there is almost no areas on the Forest where they cannot travel in the deepest snow conditions. ATVs allow a wide range of users a comfortable and affordable mode of transportation that can traverse rugged roads, trails and open areas of the forest with a minimal skill level. This has created a trend toward increased numbers of user created trails and ATV operation on roads with mixed traffic. With lighter frames, better gearing and suspensions, mountain bikers are continually pushing the limits of what and where people can ride. In addition, new types of technology like land toboggans, mountain skateboards etc. continue to change how the forests is used.

There has been a dramatic increase in the use of these technology driven recreational pastimes. The number of snowmobiles and ATV's registered in Utah has climbed from about 26,000 in 1980 (Thompson, H. 2001) to about 116,000 in 2002 (State of Utah Tax Commission). The sale of Mountain Bikes has increased dramatically during the last 10 years. Mountain Bikers have created a number of conflicts between riders and hikers as each compete for the same trail. Similar conflicts exist between motorized and non-motorized users both during summer and winter as they recreate in similar areas and trails. The popularity of these sports has increased dramatically in the past ten years and is projected to continue to increase at a similar rate. The cumulative effect of the increase numbers of motorized recreation vehicles is the desire to have more opportunities for discovery and testing of skills on limited travel ways and land mass, which push user densities towards undesirable levels for many recreationists and have the potential to cause more user conflicts.

In addition to an increase in mechanical forms of recreation, as the population grows there will likely be additional increases in more traditional forms of recreation such as hiking, climbing in the summer and cross country skiing, ski touring and snow shoeing in the winter.

Other recreation providers in Northern Utah public land are National Forests adjacent to the WCNF such as the Caribou National Forest to the north, the Ashley National Forest to the east, and the Uinta National Forest to the south. Bureau of Land Management lands are located to the east from south of Bear Lake to Woodruff. Wildlife management areas near the WCNF include; Salt Creek Waterfowl Management Area, Bear River Migratory Bird Refuge, Harold S. Crane Waterfowl Management Area, and the Ogden Bay Waterfowl Management Area. These areas provide developed and undeveloped recreation opportunities similar to those available on the WCNF. As recreation use continues to grow, some visitors may be displaced to other locations. Conflict between users may also escalate, increasing the need for management actions to manage the conflict. While other opportunities are available, they generally do not include the high elevation or large areas needed for some activities, particularly snowmobiling and backcountry skiing. Conflict between these users is currently high and is expected to increase.

Beaver Mountain Ski Area, Powder Mountain Ski Area, The Canyons, Park City, Deer Valley, and Sundance Ski Resort are in constant competition with the five ski areas on WCNF in order to keep their part of the market. Total skier visits in Utah are forecasted to grow from around 3 million currently, to over 4 million by 2007. (USDA Forest Service. 1999d). "Approximately 49 percent of (3.1 million) Utah ski resort visitors were non-residents from other U.S. states. Roughly 3 percent were international visitors while the remaining 48 percent of resort visitors were residents of Utah." (Wikstrom Economic and Planning Consultants. 2000) With this trend a change in the market could have cumulative effect on the five ski areas on Forest Service System lands administered by the WCNF either for the positive or negative.

Inventoried Roadless Areas may displace users from Uinta, Caribou, and Ashley NF and cause increase use on the WCNF.

The marketing of tourism in the State of Utah, Idaho and Wyoming inform people of areas where they can recreate. With the invention of better electronic communications, marketing is less and less controlled and provides information to the user that may be incomplete. It is much like the

gold rush of the 1800's where people sought riches of the west based on tale's that you could pick the gold off the ground as you walked along. This may have been true for a few people, but when you put thousands of people in the same place the chances of finding gold became mute. Thus it is with information technology tourism marketing when a company of web sites tells people of the wonderful recreation experience they can have by going to this location of the Forest. The land becomes overburden and can no longer provide the experience described and causes conflicts of desires and with other users.

Rapid urban expansion is expected in the next 20 years and as open space diminishes pressure to build on the foothills will increase (Utah, State of. 2002b). Private land development is occurring adjacent to the WCNF boundary with high density housing along the foothills and in some more mountainous areas such as canyons east of Salt Lake City from Emigration Canyon to Little Cottonwood, upper Weber drainage, Woodland, north side of the South Fork Ogden River, Little Bear drainage, west of Bear Lake, near Bear River Service, and Meeks Cabin Reservoir. This continued expansion necessitates communities planning for the future by identifying access points and trails systems that will provide recreation opportunities for the nearby residents. Because National Forest System lands are or will be the boundary for this development, the cumulative effect will be ever increasing recreation pressure on these adjacent lands.

When vegetation and/or fuels management occurs on adjacent public lands the recreation users are displaced to another location that provide an alpine recreation experience. This could happen because of specific management activities, human caused events or acts of God all of which have a cascading effect of moving recreationists from one location to another and creating undesirable conflicts as user density increases and users find that their personal special Forest location has been taken over by another individual.



Topic 4 – Recreation/Scenery Management

Scenery Management

Introduction

The scenery visible to people visiting or living by the WCNF constitutes the scenic resource. Scenery is described as the general appearance of a place or landscape, or the features of a landscape. The character of the landscape varies by location and is dependent on natural features such as geology, vegetation, water features, landforms, natural disturbances and human alterations

The WCNF is the scenic backdrop and playground to the populace of the Wasatch Front, Cache Valley and other basin communities in Utah and Wyoming. People view these scenic resources from their residences, special places and travel ways that meander through the Forest.

“The majority of the recreation-oriented people who visit the National Forests have an image of what they expect to see. Such an image or mental picture is generated by available information concerning a particular area and the person’s experience with that or similar areas. The image produced represents the knowledgability, expectedness, romanticism, and emotionalism associated with features within an area. Obviously, several images may exist simultaneously, even within a single individual, and yet a particular geographic region tends to have an identifiable image.” (AH 701. 1995)

The WCNF scenic image has been recognized nationally for its landscapes seen from its Scenic Byways, travel ways, Wilderness backcountry, recreation facilities, overlooks and canyon resorts. Viewing Scenery is one of the highest recreation activities in the nation and on the Forest.

Background

Forest management activities have the potential for directly, indirectly and cumulatively affecting the scenic resources through vegetation management, facility construction, road building, fire, and any other human interactions with the forest. These activities are related to many of the Need for Change topics, and could be implemented under any of the alternatives. Therefore, potential effects on the scenic resource are analyzed in this section.

Laws, Policy and Direction

Multiple-Use Sustained-Yield Act of 1960 (16 U.S.C. 528 (note)). This Act authorizes and directs the Secretary of Agriculture “to develop and administer the renewable surface resources of the National Forests” with “harmonious and coordinated management of the various resources ... with consideration being given to the relative values of the various resources, and not necessarily the combination of uses that will give the greatest dollar return or the greatest unit output.”

Wilderness Act of 1964 (16 U.S.C. 1131). This Act directs the United States to retain the “primeval character and influence” of Wilderness areas and to protect and manage a Wilderness area “so as to preserve its natural conditions which generally appears to have been affected primarily by the forces of nature, with the imprint of man’s work substantially unnoticeable.” One of the six primary public purposes of a Wilderness area is scenery.

National Trails System Act of 1968 (16 U.S.C. 1241). This Act authorizes the Secretary of Agriculture to administer and manage national scenic trails “for the conservation and enjoyment of the nationally significant scenic, historic, natural, or cultural qualities of the areas through which such trails may pass.”

Wild and Scenic Rivers Act of 1968 (16 U.S.C. 1271). This Act directs the United States, in its administration of components of the national wild and scenic rivers system, to give primary emphasis to protecting “its aesthetic, [and] scenic . . . features.”

National Environmental Policy Act of 1969 (42 U.S.C. 4321). This Act directs the Federal Government to “(2) assure for all Americans . . . healthful, productive, and aesthetically and culturally pleasing surroundings; (3) attain the widest range of beneficial uses of the environment without degradation, [or] risk to health; (4) preserve important historic, cultural, and natural aspects” of our environment. It further directs agencies to “insure the integrated use of the natural and social sciences and the environmental design arts in planning and in decision making which may have an impact on man’s environment.” This Act directs agencies to develop methods and procedures “which will insure that [scenery and other] unquantified environmental amenities and values may be given appropriate consideration in decision making along with economic and technical considerations.”

Forest and Rangeland Renewable Resources Planning Act of 1974 (16 U.S.C. 1601). This Act directs the Secretary of Agriculture to prepare land management plans, which provide for outdoor recreation and to develop and keep current a comprehensive inventory of all National Forest System, as well as state and private, lands and resources. This Act requires an assessment of potential aesthetic impacts during the interdisciplinary review of proposed timber sale areas, which would include clear cutting and other cuts designed to regenerate an even-aged stand of timber. It also specifies treatment of other cut blocks and protection of aesthetic resources. It directs that multiple use and sustainable yield guidelines be used with private lands involved with government programs.

The Visual Management System 1974. This publication is U.S. Forest Service Agriculture Handbook No, 462. It provided direction under which landscape management for the 1985 Forest Plan was developed. This direction was widely implemented during the “first round” of forest plans from the 1980’s and 1990’s.

Federal Land Policy and Management Act of 1976 (43 U.S.C. 1701 (note)). This Act states that it is the policy of the United States to manage public lands in a manner that will protect the quality of scenic, ecological, and environmental values. It further directs the Secretary of the Interior to prepare, maintain and keep current an inventory of “outdoor recreation and scenic values” on all public lands. This authority is delegated to the Secretary of Agriculture to allow Forest Service management of some Bureau of Land Management lands.

National Forest Management Act of 1976 (16 U.S.C. 1600 (note)). This Act requires that the removal of trees, portions of trees, or forest products “be compatible with multiple use resource management objectives in the affected area.”

Surface Mining Control and Reclamation Act of 1977 (30 U.S.C. 1201). This Act authorizes the Secretary of Agriculture to permit surface coal mining operations if there are no significant recreational or other values, which may be incompatible.

Public Rangelands Improvement Act (1978) declares “unsatisfactory conditions on public rangelands reduce the value of such lands for recreational and aesthetic purposes.”

RPA Statement of Policy Act of December 12, 1980 (P.L. 96-514, 96 Stat. 2957). This Act states that it is the policy of the United States that the “Nation’s forested land, except such public land that is determined by law or policy to be maintained in its existing or natural state, should be managed at levels that realize its capabilities to satisfy the Nation’s need for . . . recreation and aesthetic values.”

North American Wetlands Conservation Act of 1989 (16 U.S.C. 4401(note), 4401-4413, 16 U.S.C. 669b (note)). This Act recognizes the aesthetic values of fish, shellfish, and other wildlife; it further recognizes that wetland ecosystems provide aquatic areas, which are important for recreational and aesthetic purposes. It directs the head of each Federal agency, to the extent consistent with their mission and statutory authorities, to cooperate to restore, protect, and enhance the wetland ecosystems and other habitats for migratory birds, fish, and wildlife.

Tourism Policy and Export Promotion Act of 1992 (P.L. 102-372, 106 Stat. 1170; 22 U.S.C. 2121 note, 22 U.S.C. 2124c). This Act created the Rural Tourism Development Foundation to assist in growth and “promotion of rural tourism [to] contribute to the economic development of rural America and further the conservation and promotion of natural, scenic, . . . and recreational resources....”

Scenic Byways (Intermodal Surface Transportation Efficiency Act of 1991) (23 U.S.C. 101(note)). This Act directs establishment of a national scenic byway program with designation criteria to include consideration of scenic beauty. It further recommends that designated travel ways have operation and maintenance standards which include “strategies for . . . protecting and enhancing the landscape and view corridors surrounding such a highway.”

Landscape Aesthetics Handbook, Agriculture Handbook, No. 701, 1995 This handbook replaced The Visual Management System, Agriculture Handbook No. 462. The Scenery Management System (SMS) presents a vocabulary for managing scenery and a systematic approach for determining the relative value and importance of scenery on National Forest lands.

Affected Environment

The affected areas for direct and indirect effects to scenic resources are the lands administered by the National Forest. These areas represent the National Forest System lands where the scenic resources exist, and the lands where those resources could receive both management activities

and disturbance events. The affected area for cumulative effects includes the lands administered by the National Forest, and the lands of other ownership both within and adjacent to the National Forest boundaries. Cumulative effects to resources on the other land ownerships are addressed to lend a broader perspective to the importance of scenic resources on the Forest and to acknowledge the inter-relationship with those lands.

The present landscape is a result of the interactions of existing vegetation and landforms on line, form, color, and texture of the viewed scenery. The existing landscape character varies by location and are dependent on such influences as geology, water, vegetation, landforms, and human developments and activities. The scenic landscape is a dynamic medium and is continuously modified by both human and natural causes.

Geologic events, wildland fire, human developments and activities and wildland fire exclusion have altered much of the landscape that comprises the WCNF. Some of these altered landscapes are not obvious to casual viewers because they still present a natural appearance, or cultural modifications appear to be part of the *valued* image people are expecting in a landscape. This is especially true when looking at some of the vegetation conditions that have resulted from fire exclusion.

For planning purposes, the Forest is divided into five Landscape Character Types (LCT), which have varying degrees of human alteration. They range from the subtle changes found in Natural Evolving LCT (25 percent of the Forest) to the highly modified Landscape Character Theme of Water Recreation Rural Appearing (0.3 percent of the Forest) found in Ogden Valley's, Pineview Reservoir, located in a rural culture setting of farms, tree lined fields and patch work of fenced pastures. A majority of the Forest's LCT is Natural Appearing (72 percent) where the altered landscape appears natural to the casual visitor where valued amenities such as trailheads, campgrounds and historic uses are evident.

Adjacent to the scenic byways on the Forest are landscapes that have moderate to high densities of developed forest facilities in a natural setting and is described as Developed Natural Appearing (2 percent). Five ski areas comprise the remainder of the Forest where mountain villages, base facilities, ski runs and trails mimic or abstract characteristics of color and forms found in the surrounding landscape and is described as Resort Natural Appearing (0.5 percent) (See Appendix D-4 Allocation Framework Scenery Management System for more detail description of Landscape Character Themes).

For the Wasatch-Cache providing pleasing landscapes with appropriate protection for supporting resource elements has always been a major consideration in larger allocation decisions and at the project level. A new program for scenery management is proposed in this FEIS.

Visual Management System, Visual Quality Objectives (VQO), and the proposed Scenery Management System (SMS)

The biggest difference proposed for scenery management is the new Forest Service program management direction for scenery. Existing Forest Plan direction for scenery was created under the Visual Management System (Forest Service Handbook, No. 462, April 1974), which

developed Visual Quality Objectives (VQOs) for the forest. The base line that VQOs are compared against is the perceived natural landscape; any deviation from this base line would be considered negative and an effect on the landscape character. Proposed Forest Plan direction, under any alternative except the No-Action Alternative 4/1985, is formulated under the new direction found in Landscape Aesthetics, A Handbook for Scenery Management, (USDA Forest Service. 1995b).

In the early 1990's the Forest Service determined that a new landscape management methodology was desirable. The new system has basic differences from the old system, although it still incorporates some of the original inventory element of the old version. SMS has a new vocabulary of terms, encourages public participation in development of desired future conditions, and does not necessarily judge human developments (buildings, roads, structures) or natural disturbances as detracting from a landscape's character.

In a general sense, over half of the Forest is now being managed as "Moderate to Low" Scenic Integrity Objective if we translate the existing VQO system into SMS terms. Because cultural features are considered negative, providing direction to move to a higher Scenic Integrity Objective is difficult and likely will not occur. Vegetation will continue to be managed to appear as natural as possible within the application of the existing plan's management practices.

Complete general description of SMS methods are provided in (USDA Forest Service. 1995b.) Appendices to this FEIS are provided to show specifics about how SMS has been interpreted for application on the WCNF. Appendix D on Scenic Resources presents SMS as one of three basic allocation mapping frameworks used in this planning process, the other two being Management Prescription Categories (MPC) and Recreation Opportunities Spectrum (ROS). Almost all SMS Landscape Character Themes (LCT) and Scenic Integrity Objectives (SIO) correlate directly to specific Management Prescription Categories, and as such vary by alternative as MPCs do for the same areas. Two minor exceptions (in terms of overall acreage on the Forest) are Resort Natural Settings LCT (essentially ski areas) and Water Recreation Rural Appearing LCT (Pineview Reservoir); these are distinct categories with an indirect MPC correlation. The direction in Appendix B that is particular to this forest includes: a Conversion Table of Management Prescription Categories to Landscape Character Themes and Scenic Integrity Objectives; and a Definition Table for Landscape Character Theme and Scenic Integrity Objective. In addition to the general Glossary in the FEIS, the Scenic Resources section of Appendix B also includes a glossary of terms specific to SMS.

Environmental Consequences

General Effects

Scenery is an integral component of all national forest landscapes, and contributes to the quality of people's experience. Scenery has been altered in numerous locations across the Forest by both human and natural forces. Obvious significant effects on scenic resources arise from a variety of resource management activities and public uses such as recreation, timber management, wildland and prescribed fire, grazing, oil and gas leasing and development and utility corridors that alter vegetation and the landscape appearances. The relative amount of

these activities and uses vary by alternative. However, they are likely to be present to some extent in all alternatives.

In any given year or decade, only a small percentage of a forest is or may be treated (timber harvests, prescribed fire, construction, etc.). Prior to implementing any site-specific project, an analysis shall be completed which will disclose potential impacts and require specific mitigation measures to ensure compliance with adopted objectives for Scenery. The objectives are minimum guidelines to be met and it is understood that project implementation will always strive to minimize adverse effects to the scenic resources of the Forest.

Table SMS 1 shows how the acreage of the several Landscape Character Themes and Scenic Integrity Objectives varies by alternative when looked at across the WCNF. Note that management under Alternative 4 is depicted in terminology from the old VMS system, and no direct translation is possible between the two systems to compare current environment with the action alternatives.

For Alternatives 1-3 and 5-7 the Forest would be managed under five LCT's. For all Alternatives except Alternative 1 and 4, the management of the largest percentage of the Forest would be in a Natural Appearing LCT. In Alternative 1 over half of the Forest would be managed in a Natural Evolving LCT and Alternative 4 would manage the entire Forest in a Natural LCT. See Appendix D-4 for detailed descriptions of Landscape Character Types (LCT), Scenic Integrity Objectives (SIO) and see Conversion Table D4-1 for the correlation of MPC to LCTs and SIOs.

Natural Appearing LCT is divided into three Scenic Integrity Objectives (SIO: High, Moderate and Low. For the High SIO, Alternative 7 would have the greatest amount where nearly half of the LCT would be managed in a High SIO. Alternative 2 would have the next highest and Alternatives 3, 5 and 6 would be moderate while Alternative 1 would have the lowest at about one third of the LCT.

The MPC for Terrestrial Habitat, Forested Vegetation Multiple Resource Objectives, Communication Sites and Mineral Development emphasis would be managed in Moderate SIO within Alternatives 3 and 6 managing over a quarter of the LCT. About an eighth of LCT in Alternatives 2 and 7 would be Moderate and Alternative 1 would have the lowest amount of the Moderate SIO.

Low SIO would include MPC 5.2 Forest vegetation timber growth and yield, and also includes Utility Corridors, but the acres are not shown because only the transmission lines activities would be managed as a Low SIO all other activities would be managed as defined by SIOs for each alternative. There are no Forest vegetation timber growth and yield activities in Alternatives 1 and 2. Alternatives 3, 6 and 7 have less than 4 percent of the LCT managed as Low SIO and Alternative 5 would have 30 percent of the LCT in a Low SIO.

Natural Evolving would represent the scenery LCT for the Wilderness and Recommended Wilderness on the Forest in each Alternative except 4/1985. The SIO for this LCT would be Very High. In Alternative 1 the Very High SIO includes over half of the Forest. For

Alternatives 2, 3, 6 and 7 about a third of the Forest would be Very High and Alternative 5 would be about a quarter of the Forest.

Natural LCT makes up all of the Forest in Alternative 4 and is divided into four SIOs; Very High, High, Moderate and Low. This represents the 1985 plan and was created by making a cross-walk in terms from VQOs to SIOs. See Appendix D for definitions. There is no correlation for these SIOs to the MPCs for Alternative 4/1985 Forest Plan.

Landscape Character Types (LCTs) such as:

- Developed Natural Appearing include Scenic Byways and Developed Recreation Areas along the byways.
- Resort Natural Setting includes Developed Recreation Areas such as Ski areas.
- Water Recreation Rural Appearing includes Pineview Reservoir.

These LCTs make up a very small percentage of the managed Scenery on the Forest for all alternatives except Alternative 4/1985. The specific activities and development associated with these LCTs would allow human alteration to harmonize with the surrounding Landscape Character. The LCT would be managed in a High SIO, would be implemented on future projects, and may initiate projects to bring areas where they do not meet the SIO within these LCTs.

Table SMS-1. Landscape Character Theme and Scenic Integrity Objective by Alternative

Sum of %		ALT						
LANDSCAPE CHARACTER	SCENIC_INT_OBJ	ALT 1	ALT 2	ALT 3	ALT4/1985	ALT 5	ALT 6	ALT 7
natural evolving	very high	56.3%	36.7%	29.1%	N.A.	24.9%	30.5%	29.9%
natural appearing	high	33.8%	43.6%	36.6%	N.A.	39.5%	38.7%	49.7%
	moderate	7.3%	17.0%	28.2%	N.A.	2.2%	25.2%	14.7%
	low	0.0%	0.0%	3.5%	N.A.	29.7%	2.8%	3.1%
developed natural appearing	high	1.9%	2.0%	1.9%	N.A.	2.9%	2.0%	1.9%
resort natural setting	high	0.5%	0.5%	0.5%	N.A.	0.5%	0.5%	0.5%
water recreation rural appearing	high	0.3%	0.3%	0.3%	N.A.	0.3%	0.3%	0.3%
Natural* VQO Preservation	very high*	0.0%	0.0%	0.0%	25.0%	0.0%	0.0%	0.0%
Natural* VQO Retention	High*	0.0%	0.0%	0.0%	12.0%	0.0%	0.0%	0.0%
Natural* VQO Partial Retention	Moderate*	0.0%	0.0%	0.0%	27.0%	0.0%	0.0%	0.0%
Natural* VQO Modification	Low*	0.0%	0.0%	0.0%	36.0%	0.0%	0.0%	0.0%
Grand Total		100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

*Translation from the Visual Management System terminology to Scenery Management System terms. Alternative 4 represents the 1985 Forest Plan direction for Scenic Resources.

Effects on scenic resources from timber management

Effects on scenic resources from timber management can vary depending upon the quantity and type of trees removed, logging methods, and the physical character of the landscape. Generally, timber removal—and any associated roads, skid trails and slash treatments—results in adverse effects to the scenic environment arising from vegetation change or removal and ground disturbance. Impacts from timber harvest are often most dramatic in areas where no change in landscape character has previously occurred. Adverse effects are usually less where disturbances

are already prevalent across the landscape. Thinnings, partial cuts, and selection cuts usually have lower impacts and are evident for a shorter duration than overstory removals, seed tree cuts, and clearcuts. Helicopter logging does not create skid trails or yarding corridors that contribute to the visual impacts of ground-based and cable logging systems. Timber management may also be used to improve scenic quality, particularly where there are opportunities to enhance scenic views, to provide a landscape associated with people's expectations, and to achieve timber stand characteristics that are more visually appealing.

No suited timber production lands would be allowed in Alternatives 1 and 2, making potential effects from it non-existent. Alternative 5 has the most suited timber production lands proposed, and consequently would have the most effect on scenery from this activity because of the total amount of acres available. Alternative 4/1985 Forest Plan is the next highest. Alternatives 3, 6 and 7 have low amounts of suited timberlands. Depending on the type of timber harvest method selected there would be change in the vegetation density, and/or pattern changing the character of the stand and view. Regardless of the alternative selected, all timber harvest will go through site-specific analysis to ensure consistency with adopted objectives for scenery and mitigation measures would be applied to minimize adverse effects.

Effects on scenic resources from fire, insect and disease

For this discussion, it is important to note the overall biological health of the Forest is poor because of fire exclusion and other activities. However, this is from a scientific standpoint, as seen by the casual visitor if the image of the forest is green and forms and patterns appear intact, the casual visitor may consider the Forest to be in good health.

Though processes related to fire, insects, and disease are natural, the casual visitor may perceive the image of one or more of the stages of the ecological cycle as negative. Until the undesirable characteristic (black snags, red canopies in conifer, etc.) is replaced by the next stage of the natural process, the image of the forest could appear damaged or unhealthy to the casual visitor. In areas where disturbance events dominate the landscape, the potential for dramatic visual effects is likely to substantially increase over the long term. It is difficult to predict how or where or when these changes might occur due to influential variables such as vegetation patterns, disturbance regimes, climate, and topography.

For Alternative 1, because of its strong emphasis on allowing nature to take its course, and minimizing human interference with natural processes the image or character of the landscape may have little change within the management time of the proposed forest plan (the short term). However, in the longer-term as the Forest health degrades, effects in vegetation appearance (bug kill, decadence, fire) could occur in Forest landscapes. Such effects could be on large areas with uncharacteristic fires and conversion of aspen types to conifer and back again as cycles occur over time. Should management of the Forest continue with the same emphasis for the duration of time nature takes its course, (amount of time will vary based on vegetation type) positive characteristics could occur as the vegetation types reach their properly functioning condition and become the dominant character of the landscape. As part of this alternative it would be anticipated that because the forest is in a number of different ecosystems that the properly

functioning condition would vary from landscape to landscape and would not all appear positive at the same time.

With Alternative 2 the Forest Service actively initiates prescribed fires and other actions to change vegetation mosaics and increase age class diversity with the intent of trending toward properly functioning conditions. In areas where natural appearing scenery was desired, this alternative would have positive effects on scenery producing a more diverse landscape with greater variety in color, texture and composition.

For Alternatives 3, 6 and 7 a moderate program of prescribed fire and wildland fire treatment could allow a trend toward improving scenery over time.

In Alternative 4, the WCNF does not allow wildland fire use or such extensive use of prescribed fire. In this case, vegetation might continue its trend toward an abundance of over aged stands and decreasing diversity, with insect and disease more prevalent. These are not conditions that favor scenery in the long term.

For Alternative 5, emphasis *on fire* use, while still available, would not affect as many acres. Short term fire evidence from these treatments would not be as prevalent in Alternative 5 as compared to Alternatives 2, 3, 6 or 7.

Effects on scenic resources from livestock grazing

Historical grazing has caused an estimated reduction in the amount of wildflower (Tall Forb) plant communities by nearly one half (USDA 1998b). While the loss of these wildflower meadows did not occur within the lifetime of current observers, this has affected a change in the visual qualities of these areas (most prominent in the Cache-Box Elder and North Wasatch-Ogden Valley Management Areas). Currently the landscape appearance may include differences in the type and amount of vegetation on the land, vegetation trampling, and range improvement structures. Effects from grazing depend largely on the intensity and timing of forage utilization.

Normally, allotment management plans require permittees to move their livestock so that they do not concentrate in sensitive areas, like meadows and riparian areas. Although there could be effects from seasonal trampling and heavy utilization of the forage, the potential for change to the perceived landscape character is relatively slight by the casual visitor. Structural improvements, such as fences, may be visually evident and can detract from the landscape character of an area. Mitigation may include relocating or redesigning fences where possible, or removing them where they are no longer needed. Generally, improvements are small and localized, and have a minor effect on the Scenic Integrity Objective of the surrounding area. If range allotments were maintained to standard, there would be minimal effect between alternatives.

Effects on scenic resources from recreation management

Effects on scenic resources from recreation activities can result in impacts depending on recreation activity levels, and soil and vegetation types. Off-road and off-trail travel and

undeveloped camping can cause erosion, ground disturbance, or de-vegetation. Although all forms of travel have the potential to cause these types of impacts, effects associated with most forms of motorized travel are usually the most pronounced due to the combination of vehicle weights, widths, and their creation of continuous track lines. In snow-covered landscapes, high numbers of snowmobile or ski tracks across a scenic view can also result in a temporary visual impact.

In addition to the visible effects of activities, recreation developments can contribute to the loss of natural appearance by introducing numerous vehicles, groups of buildings, and conspicuous structures. As with other structures and facilities, the effects range from short to long term in duration and can vary depending on the scale and nature of the development, as well as the desired landscape character.

For Developed Recreation few changes are proposed across the six action alternatives. There ought to be no discernable difference between the alternatives as no developed facilities are selected for closure. While new recreation development is allowable in Alternatives 3, 4, 5, 6, and 7 (in areas where MPCs allow it) changes will be minor from the middleground and background view the change in character by adding the recreation facilities would be seen in foreground view.

Undeveloped recreation use can cause a variety of impacts that affect scenic resources. The effects are typically more pronounced with motorized use due to the weight and size of vehicles and the imprints left on the landscape. Since there is no off-route vehicle travel permitted on the Forest, these impacts are contained, except when accessing undeveloped camping sites within 150 feet of a travel corridor. Non-motorized areas (ROS classes SPNM and P) typically have narrower travel ways that are less visible on the landscape. Visual impacts can also result at high use undeveloped campsites, occurring in both motorized and non-motorized settings. Impacts include: erosion, trampled or complete elimination of vegetation, fire pits, etc. Alternatives 1 and 2, because of emphasis on non-motorized recreation opportunities, will likely have fewer impacts to the scenic resources than the other alternatives.

Regardless of which alternative is implemented, it will be critical to improve education and information programs such as Leave No Trace and Tread Lightly. Travel Plan enforcement will also be key to minimizing impacts from undeveloped use.

Effects on scenic resources from ski resorts

Most of the ski areas on the WCNF are remnants of previous human activities, such as mining or timber harvest, resulting in the vegetation mosaic that lent itself to the open slopes needed for skiing. As the ski industry has progressed more ski runs and other amenities have been added, increasing and opening more slopes to the sport and providing easier access to the open bowls above timberlines. The forms, lines, colors and textures of human altered features have become dominant activity islands within a natural appearing landscape. Many of the communities changed as industry changed and began to support both local and out of town visitors using the canyon bottoms as collecting points by providing restaurants, shops, overnight accommodations, parking lots, roads and support communities for the industry. This built environment repeated

many of the colors and forms found in the surrounding landscape. Recognizing these, human altered landscapes have a long-term effect.

Alternatives 1, 2, 3, 5, 6 and 7 manage the ski resorts within a Resort Natural Setting LCT and High SIO. This LCT manages for positive cultural elements in the base area, ski trails and amenities that borrow from the form, line and color found on the mountain slopes within the permit area of the resort. Alternative 4/1985's LCT for the entire Forest would be Natural and manages the SIO for the base area in Low and Moderate on the mountain slopes. The effects of ski area management to scenery would be the change in the over story of vegetation and how openings and thinning occurs in the permit area in Alternative 1, 2, 3, 5, 6, and 7.

In Alternative 5 ski resorts would be able to expand their permit boundaries, which would change the expansion acres from Natural Appearing LCT to Resort Natural Setting LCT in some ski areas. For ski slopes, this can change landscape character creating obvious runs where natural features were present and add other amenities to allow skiers to access the new expanded areas.

Effects on scenic resources from travel management

Effects on scenic resources from travel management construction, reconstruction, and decommissioning can all affect the landscape character of an area. Road construction and reconstruction are usually associated with timber harvest, facility development, utility corridors, telecommunications sites, mineral and energy development, and recreation activities. Roads and trails create a long-term visual impression on the landscape from associated vegetation clearing and ground disturbance activities. These effects are usually magnified by the linear nature of the pattern of disturbance, especially in forested landscapes. The extent of the impact depends upon topography, service type, soils, geology, and the nature of surrounding vegetation. The visual impact from trails is less due to their smaller width, which reduces the level of ground disturbance and makes impacts easier to mitigate in most cases. Road and trail decommissioning includes a variety of management actions ranging from simple closures to complete obliteration. Obliteration can often eliminate the visual impacts of a road or trail over the long term as vegetation matures in former road or trail locations; however, temporary or short-term effects of ground disturbance are often greater than closures.

No new roads or new trails would be built in Alternative 1, creating the least effect on scenic resources of any alternative. In Alternative 2, which emphasizes active restoration, low amount of new roads would be constructed (a few miles for timber harvest). Alternative 3 and 4 would be second highest in the number of miles of road construction, Alternative 3 would have greater impact because of the level of road construction needed for Oil and Gas development. Alternative 5 would have the highest miles of roads and the greatest effect to scenery because of the size of the road prism needed for Oil and Gas development and also road constructed for timber management. Alternatives 6 and 7 would have a low amount of road construction.

Effects on scenic resources from soil and water management

Under all action alternatives, given the forestwide goal for watersheds, effects to scenic resources should be positive, as systems trend toward properly functioning condition. There will

be a short-term effect during any construction or rehabilitation work, but as vegetation is re-established the changes should appear natural and will have no effect on the landscape character of an area. For Alternative 1, enhancement to the existing landscape character would occur over the long term as natural systems act on watershed and soils. Unfortunately, in some known problem areas, deterioration would occur before natural stabilization takes place.

In Alternative 2, watershed and soil problems that contributed to scenic problems would be corrected more quickly in problem areas than in Alternative 1 through a more active management program. As this alternative is a relatively aggressive restoration for vegetation through prescribed burning, with some associated watershed disturbance, some short-term detracting to scenery is anticipated before longer-term restored landscape character(s) are enhanced (See Topic 1.)

Alternatives 3, 6 and 7 are similar in the acres of disturbance to watershed through activities. These alternatives would have less short-term effect than Alternative 2. Alternatives 4 and 5 are approximately equal, but have greater effects than Alternatives 3, 6 and 7, based on acres of disturbance of watershed through a variety of activities. (See Topic 1).

Effects on scenic resources from oil and gas leasing

The following description of effects refers only to the area identified as the “Appeal Settlement Zone” as described in Topic 9 – Oil and Gas. It is estimated to be about 68,300 acres.

Exploratory drilling typically results in some significant visual impacts, particularly in areas that have seen no development in the past. Impacts from exploration activities are usually short-term because of the sight and presence of exploratory equipment. During the exploratory phase the sight of equipment above the overstory of vegetation would potentially be noticeable for nine to twelve months. If no discovery were made the equipment would be removed and the area reclaimed. Oil and gas activities in the development and production phases typically result in long term impacts, but are less significant than the exploratory phases. Visual impacts from all phases of oil and gas activity are usually mitigated when reclamation of the site is complete.

The decision being made in the Forest Plan affects new leases not existing ones. In all alternatives (except Alt 4) an area of existing leases, the Table Top Unit, could be explored and result in effects to scenic resources. The degree to which the Table Top Unit is explored is affected by whether or not new leases could be issued and under what stipulations.

Though Alternative 1 does not allow new leasing in the Appeal Settlement Zone, development of existing leases within the Table Top Unit could affect scenic integrity of an undisturbed landscape. The scenic integrity of the area could be affected on an estimated 20 acres because of oil and gas exploration activities. Mitigation applied to existing leases could reduce effects by screening with vegetation or topography. Sensitive viewpoints could be affected until reclamation is effective. Alternative 2 is very similar. Again, development of existing leases within the Table Top Unit could affect the scenic integrity on about 20 acres. Once the existing leases expire, new leases could be issued, but surface occupancy would not be allowed. Nearby directional drilling from outside the area could affect some sensitive viewpoints.

Alternative 3 precludes leasing availability in areas recommended for Wilderness in the future and does not allow new leases with surface occupancy in areas managed for undeveloped and backcountry recreation values. Additional new leases could be issued outside the areas listed above with stipulations applied to protect sensitive resources. An estimated 10,400 acres are available under Standard Lease Terms. Oil and gas exploration and development are estimated to disturb about 75 acres. Some of the effects to scenery could last 20-30 years because of field development. Some of this development is predicted on existing leases within the Table Top Unit. In new leases a Controlled Surface Use stipulation would be applied to areas with high or moderate scenic integrity level to maintain the valued scenic integrity of an area.

Alternative 4 does not make a leasing decision. Because lessees would not be able to effectively develop a field should one be discovered due to nearby unleased parcels, future activities are not likely. No effects to scenery are probable.

Alternative 5 would provide for leasing with standard lease terms and therefore provide the greatest opportunity for full field development. Oil and gas activities are estimated to disturb about 105 acres. Because the landscape is relatively undisturbed, scenic resources would be significantly affected. Some of the effects could last 20-30 years because of field development. Mitigation in the form of road rehabilitation, and the use of noncontrasting colors on structures, would help to minimize or avoid the impacts. Other mitigation measures that could be required would include moving the site up to 200 meters (656 feet) if the site could be better screened by vegetation or topography, delaying activities for up to 60 days to avoid periods of high use by forest visitors, and painting of facilities to help blend them into the surrounding environment.

In Alternative 6, new leases issued as a result of the leasing decision made in the plan revision would not allow surface occupancy. However, existing leases in the Table Top Unit that expire would be immediately renewed in areas not precluded by management plan direction. Leases would be renewed in areas managed for motorized undeveloped recreation values and terrestrial habitat. Within this area a Controlled Surface Use stipulation would be applied to areas with high or moderate scenic integrity level to maintain the valued scenic integrity of an area. In the remainder of the area the effects to scenic resources would be minimal because of no surface occupancy.

Alternative 7 would preclude leasing on 20,400 acres recommended for Wilderness. On the remaining 47,900 acres available for leasing, surface occupancy would be allowed on 27,000 acres. Of this acreage, oil and gas activities are estimated to disturb about 85 acres. Some development (included in the 85 acre estimate) is predicted within the Table Top Unit because of existing leases and new leases being offered with surface occupancy. Because the landscape is relatively undisturbed, effects to scenic resources could be dramatic. Some of the effects could last 20-30 years because of field development. Within the area that allows surface occupancy a Controlled Surface Use stipulation would be applied to areas with high or moderate scenic integrity level to mitigate effects and maintain the valued scenic integrity of an area. To the extent possible, effects to sensitive viewpoints would be reduced by screening oil and gas activities with vegetation or topography until reclamation is effective.

Impacts to the visual resources could occur as a result of the development of private minerals. Oil and gas activities on lands with private minerals are not required to meet Forest Plan guidelines for scenic resources.

Cumulative Effects

The method of analysis is to describe the cumulative effect issues describe the cumulative effect area and the time frame for analysis; identify past, present and reasonably foreseeable actions; and present the cumulative effects among the alternatives.

Issues

The main issue identified under scenery management is updating from the Visual Management System to the Scenery Management System and providing new direction and desired future conditions for WCNF National Forest System Lands.

Cumulative Effects Area and Time Frame

The cumulative effect area is within approximately two hours of the main population centers of Salt Lake City, Ogden, Logan, Tooele and Park City that provides scenery and scenic backdrop for these communities. The time frame is from the previous planning period through the next planning period or approximately 10 to 15 years before and after the present time.

Past, Present and Reasonably Foreseeable Actions

The environmental consequence section describes effects to scenery from various topic areas. Of these topic areas, the primary topics that could cumulatively affect scenery management are from timber management; fire, insect and disease; livestock grazing; recreation management; ski resorts; travel management; soil, water and management; and oil and gas leasing.

Cumulative Effects

The Forest Service has provided a new system for evaluating and managing scenic resources. This system is a reflection of the recognition by the agency that landscape amenity values are very important to people. While this recognition is true and federal land managers can and should be relatively sensitive to effects on scenery, the same is not always true beyond public lands.

The visual landscape beyond the forest boundary is changing quickly. Urbanization continues along the Wasatch Front and in valleys on the east side of the range. Rural agricultural and residential expansion push toward the North Slope of the Uintas. Towns and communities are growing together, and subdivisions and recreation homes encroach on public lands. It is expected that this will continue as our population grows and transportation and other infrastructure and commercial systems expand. (See Social and Economic section).