

## **Topic 5 – Wilderness Characteristics, Roadless Area Values, and Wilderness Management**

**The organization and content under this topic has been changed considerably since the publication of the DEIS.**

The first section of Topic 5 presents general information on inventoried roadless areas on the Wasatch-Cache. After that Topic 5 is separated into three sections:

- Effects on wilderness characteristics.
- Effects on roadless area values.
- Wilderness Management

### **Additions and changes to the analysis in the FEIS for roadless areas**

In the DEIS for the Wasatch-Cache Forest Plan (May, 2001) the analysis of roadless areas focused mostly on their capability, availability and need as potential designated Wilderness, (See Appendix C, DEIS). The Roadless Area Conservation Rule for the protection of roadless areas from timber harvest and road building was applied to Alternatives 1, 2, and 6 in the DEIS. For Alternatives 3, 4, and 5 different allocations were used for roadless areas that would allow some of these uses and other uses that could negatively affect roadless values. Little definition or recognition of the different values of the areas was presented, except for their potential as recommended Wilderness.

After public comments received on the DEIS, with the changing of policy from the Clinton to the Bush administrations, and with the injunction of the U. S. District Court in Idaho on implementation of the rule (May 12, 2001), a different strategy for allocations related to roadless areas was appropriate. The Intermountain Region and the Wasatch-Cache determined that additional scrutiny and consideration of individual roadless area values was needed, so that Forest Plan decisions might be made with a fuller awareness of the undeveloped values of each area, as well as its potential for a variety of uses.

A new appendix to the FEIS, Appendix C-2, is added which inventories roadless area characteristics and values originally described in the Roadless Area Conservation DEIS (May, 2000). Effects to these values by alternatives for each roadless area are also presented in that appendix.

Appendix C to the DEIS which evaluates individual roadless area capability, availability and need for recommendation as Wilderness is now called Appendix C-1. Most changes to Appendix C-1 from Appendix C of the DEIS are minor, moving some analysis data to Appendix C-2, or adding additional explanation of planning considerations regarding the Roadless Area Conservation Rule.

## Introduction

“Roadless Areas” refer to areas that are without constructed and maintained roads, and that are substantially natural. Some types of improvements and past activities are acceptable to be included in roadless areas.

In the past, roadless areas were only looked at for their potential for wilderness recommendation. It is now recognized that roadless areas have significant ecological, as well as social values. The values of roadless are of both local and national significance. Roadless areas are often aquatic strongholds for fish; provide critical habitat and migration routes for many wildlife species especially those requiring large home ranges and key watershed areas for communities and wildlife. The recognition of the values of roadless areas is increasing, as the population continues to grow and as the demand for outdoor recreation and other uses of the forests increases. These unroaded and undeveloped areas provide the Forest with opportunities for potential wilderness areas, non-motorized and limited motorized recreation, and other commodity and amenity uses.

This section describes and evaluates the effects to wilderness characteristics within inventoried roadless areas, makes considered different recommendations for Wilderness across the alternatives, and the effects to roadless area values and characteristics defined in Appendix A, Forest Service Roadless Area Conservation DEIS (May, 2000).

## Laws, Policy, and Direction

- **The Code of Federal Regulations at (36 CFR 219.17(a)):** States that roadless areas shall be evaluated and considered for recommendation as potential wilderness during the forest planning process.
- **The Forest Service Handbook (1909.12.7.1):** Directs to identify and inventory all roadless areas and details the means by which the capability, availability, and need for potential wilderness areas is assessed.
- **The Intermountain Draft Roadless Inventory and Evaluation Guide (dated 06/30/98):** expands upon the Forest Service Handbook on the inventory and evaluation phases of roadless area analysis.
- **The Roadless Area Conservation Final Rule (RACR) and Record of Decision (36 CFR Part 294):** Established prohibitions on road construction, road reconstruction, and timber harvesting in inventoried roadless areas on National Forest System lands. Its intent is to provide lasting protection for inventoried roadless areas within the National Forest System in the context of multiple-use management. This Rule is currently being reviewed by the Bush administration, and was enjoined from implementation by a Federal Court in 2001.
- **Forest Service Manual Interim Directives 1920-2001-1, 2400-2001-3, and 7710-2001-2,3:** These directives implement the Chief of the Forest Service’s direction on interim protection

of inventoried roadless areas while court and administrative proceedings regarding the RACR are completed.

## **Affected Environment**

There are 34 roadless areas on the Wasatch-Cache National Forest, totaling approximately 606,400 acres. This represents almost half of Wasatch-Cache National Forest. The Mount Naomi, Swan Creek and Gibson roadless areas are shared with the Caribou National Forest. Nobletts and White Pine roadless areas are shared with the Uinta National Forest. Widdop Mountain roadless is shared with the Ashley National Forest. The High Uintas roadless is shared with both the Ashley and Uinta National Forests. The Stansbury roadless area is contiguous with the North Stansbury and Big Hollow BLM Wilderness study areas. Most roadless acreage on the Forest is within Utah, except for 652 acres of the High Uintas roadless area is in Wyoming.

The previous roadless inventory was completed in 1983 and identified 22 roadless areas totaling 746,431 acres. (Table C-1-1 and Appendix C-1 account for changes to roadless areas and their acreages between the 1983 inventory and the publication of this FEIS.) In 1984, the Utah Wilderness Act was enacted and designated several roadless areas as wilderness, including six on the Forest (High Uintas, Mount Naomi, Wellsville Mountains, Mount Olympus, Twin Peaks and Deseret Peak). The seventh wilderness area on the Forest, Lone Peak was designated wilderness in the 1978 Endangered American Wilderness Act. When this forest plan revision effort was begun a new and updated inventory was needed to address ongoing roadless area management issues and to meet the requirements of the NFMA regulations and the Utah Wilderness Act of 1984. Each undeveloped area on the Forest identified during the inventory contains 5,000 acres or more or was adjacent to an existing wilderness area.

Because different criteria were used for the 1999 inventory than those used in 1983, ten additional areas were identified as roadless, and other areas were combined or split apart.

New roadless areas identified were Temple Peak, Right Hand Fork, Mahogany Range, Boulder Mountain on the Logan District, Sugar Pine, Lamb Canyon, Public Grove Hollow and Rock Creek – Green Fork on the Ogden District and Hogsback and the Lone Peak additions on the Salt Lake District.

The Mt. Logan roadless area defined in the 1983 inventory is now split into new three roadless areas: Mt. Logan-North, Mt. Logan-South, and Mt. Logan-West. Each is more than 5,000 acres.

Three additional roadless areas were added to the inventory as a result of comments received on the DEIS and through internal Forest Service review. These are:

- Elk Valley
- Mueller Park
- Red Butte

Also, between the DEIS and FEIS the Francis roadless area was redefined because of further examination by the interdisciplinary team (See Appendix C for rationale.) It now includes

acreage that had been called North Francis, Middle Francis, and South Francis roadless areas. Previously the Middle and South Francis areas had been dropped from consideration as roadless as being too small. The Francis roadless area is greater than 5,000 acres.

Finally, three roadless areas which were originally identified during the inventory process and were tracked in the DEIS have been dropped from consideration as Wilderness or for their values associated with the Roadless Area Conservation Rule (2001) in this FEIS as they do not meet minimum size criteria. These areas were shown on alternative maps presented with the DEIS, but have been removed from maps relating to the FEIS. Table C1-1, in Appendix C-1 to this FEIS provides some additional information on these areas and their status. These are:

- Public Grove Hollow - This was a new area identified on Ogden District in 1999. Further examination showed it was too small to meet minimum size criteria.
- Lamb Canyon – This was a new area identified on Ogden District in 1999. It is too small to meet minimum size criteria.
- Little West Forks Black - This was a roadless area that was identified in the 1983 inventory and carried into the 1999 inventory. Further examination of the area indicates that shows that it is two separate smaller two areas separated by a road. Neither of the smaller areas meets minimum size criteria.

Table RA-1 displays each roadless area by management area, acreage for each area and the Ranger District that manages the area.

**Table RA-1 Roadless Area Inventory by Management Area**

| District and Forest | Roadless Area Name<br>By Management Area | Acres *        |
|---------------------|------------------------------------------|----------------|
| Logan and Ogden     | <b>Cache – Box Elder (12 areas)</b>      |                |
|                     | Gibson                                   | 5,300          |
|                     | Mount Naomi                              | 45,100         |
|                     | Temple Peak                              | 23,400         |
|                     | Right Hand Fork Logan                    | 15,000         |
|                     | Mount Logan North                        | 19,200         |
|                     | Mount Logan South                        | 17,000         |
|                     | Mount Logan West                         | 5,300          |
|                     | Boulder Mountain                         | 8,800          |
|                     | <i>Elk Valley</i>                        | 8,200          |
|                     | Mahogany Range                           | 11,400         |
|                     | Mollens Hollow                           | 17,700         |
|                     | Wellsville Mountains                     | 1,800          |
|                     | <b>Total:</b>                            | <b>178,200</b> |
| Logan and Ogden     | <b>Bear (3 areas)</b>                    |                |
|                     | Swan Creek                               | 9,400          |
|                     | Rock Creek - Green Fork                  | 5,600          |
|                     | Sugar Pine                               | 5,600          |
|                     | <b>Total:</b>                            | <b>20,600</b>  |

| District and Forest                  | Roadless Area Name<br>By Management Area         | Acres *        |
|--------------------------------------|--------------------------------------------------|----------------|
| Ogden and Salt Lake                  | <b>North Wasatch – Ogden Valley</b><br>(8 areas) |                |
|                                      | Upper South Fork                                 | 17,300         |
|                                      | Willard                                          | 19,100         |
|                                      | Lewis Peak                                       | 12,100         |
|                                      | Burch Creek                                      | 6,900          |
|                                      | <i>Francis</i>                                   | 14,800         |
|                                      | Farmington                                       | 10,900         |
|                                      | Hogsback                                         | 7,900          |
|                                      | <i>Mueller Park</i>                              | 7,700          |
|                                      | <b>Total:</b>                                    | <b>96,700</b>  |
| Salt Lake                            | <b>Central Wasatch</b> (6 areas)                 |                |
|                                      | <i>Red Butte</i>                                 | 6,200          |
|                                      | Mount Aire                                       | 9,700          |
|                                      | Twin Peaks                                       | 6,200          |
|                                      | Mount Olympus                                    | 10,000         |
|                                      | White Pine                                       | 1,900          |
|                                      | Lone Peak (Additions)                            | 900            |
|                                      | <b>Total:</b>                                    | <b>35,000</b>  |
| Rock Creek - Green Fork<br>Salt Lake | <b>Stansbury</b> (1 area)<br>Stansbury Mountains | 39,700         |
| Kamas and Evanston                   | <b>Western Uintas</b> (3 areas)                  |                |
|                                      | Nobletts                                         | 3,100          |
|                                      | Lakes                                            | 122,000        |
|                                      | High Uintas (part of)                            | 46,100         |
|                                      | <b>Total:</b>                                    | <b>171,200</b> |
| Evanston – Mountain View             | <b>Eastern Uintas</b> (2 areas)                  |                |
|                                      | High Uintas (part of)                            | 57,000         |
|                                      | Widdop Mountain                                  | 8,000          |
|                                      | <b>Total:</b>                                    | <b>65,000</b>  |
| Wasatch-Cache National Forest        | <b>All Roadless Areas Total:</b>                 | <b>606,400</b> |

\*Since the DEIS acreage figures for roadless areas have been rounded to the nearest 100 acres

Information about state and private inholdings, unconstructed roads, motorized trails and mechanized trails provides perspective about potential tradeoffs should a roadless area be recommended for Wilderness.

### Private and State Inholdings

Private and state land was excluded wherever possible from the inventoried roadless areas. There are a few isolated parcels of Utah State and private land that were included, because they were surrounded by large acreages of National Forest roadless land. Table RA-2 lists state and private land inholdings that are completely within an Inventoried Roadless Area. Table RA-2 does not display private and state lands that are either adjacent to roadless areas or excluded by a cherry-

stem (surrounded on 3 sides by roadless). Determining land ownership for non-federal and state lands can be complicated and accuracy depends on when land sales or exchanges have occurred and when that information is recorded with the state and county governments.

**Table RA-2 Private and State Inholdings within Inventoried Roadless Areas**

| <b>Roadless Area</b>    | <b>Owner</b>      | <b>Number of Parcels</b> | <b>Acres</b> |
|-------------------------|-------------------|--------------------------|--------------|
| Mount Naomi             | Private           | 1                        | 158          |
| <i>Elk Valley</i>       | <i>Utah State</i> | <i>1</i>                 | <i>629</i>   |
| Rock Creek – Green Fork | Private           | 1                        | 40           |
| Willard                 | Private           | 5                        | 752          |
| Willard                 | State of Utah     | 3                        | 138          |
| Burch Creek             | State of Utah     | 1                        | 586          |
| <i>Francis</i>          | <i>Private</i>    | <i>1</i>                 | <i>40</i>    |
| <i>Mueller Park</i>     | <i>Private</i>    | <i>1</i>                 | <i>79</i>    |
| Mount Olympus           | Private           | 1                        | 57           |
| Twin Peaks              | Private           | 5                        | 148          |
| Twin Peaks              | Salt Lake City    | 2                        | 128          |
| White Pine              | Private           | 1                        | 117          |
| Lakes                   | Private           | 1                        | 80           |
| Lakes                   | State of Utah     | 1                        | 80           |

## Unconstructed Roads in Inventoried Roadless Areas

Constructed roads were excluded from the inventoried roadless areas; however, unconstructed roads were included. Table RA-3 displays the few unconstructed roads that are designated open on District travel plans within inventoried roadless areas.

**Table RA-3 Unconstructed District Travel Plan Roads in Inventoried Roadless Areas**

| <b>Roadless Area</b>    | <b>Road Name/Number (miles)</b>                                                                                  |
|-------------------------|------------------------------------------------------------------------------------------------------------------|
| Mount Logan North       | Welches Flat 4x4 20152 (3.6), Logan Peak 20042 (0.9), Pine Spring 20167 (0.3)                                    |
| Mount Logan South       | South Fork Millville 4x4 20023 (2.5), Breaks 4x4 20053 (.8)                                                      |
| <i>Elk Valley</i>       | <i>Elk Valley Road 039 (2)</i>                                                                                   |
| Willard                 | Grizzly Peak 20091 (.6)                                                                                          |
| <i>Mueller Park</i>     | <i>Rudy's Flat 4X4 80285 (1.0)</i>                                                                               |
| <i>Red Butte</i>        | <i>Upper Red Butte 80235b (5.0 - not open for use)</i><br><i>Parleys Fork 4X4 80224 (1.0 - not open for use)</i> |
| Stansbury Mountains     | Box Elder Canyon 80584 (0.4)                                                                                     |
| Lakes                   | Norway OB 83137 (0.4), Pole Sale 80496 (1.2), Kathy's Spur 0.2), South Fork Weber 80031 (.1)                     |
| Little West Fork Blacks | Upper Little West Fork Blacks 80804 (1.5), Stateline 80393 (4.2), Hewinta Junction 80433 (0.2)                   |

## Motorized Trails in Inventoried Roadless Areas

Motorized trails were included in the inventoried roadless areas. Some trails are only partly included within a roadless area with the rest of the trail outside the roadless area. Only system trails in approved travel plans are included. The Evanston/Mountain View travel plan is currently being revised. Table RA-4 displays motorized trails open within inventoried roadless areas.

**Table RA4**  
**Motorized System Trails**  
**in Inventoried Roadless Areas**

| <b>Inventoried Roadless Area</b> | <b>Number of Motorized Trails</b> | <b>Approximate Mileage in Roadless</b> |
|----------------------------------|-----------------------------------|----------------------------------------|
| Temple Peak                      | 4 trails                          | 10.3                                   |
| Right Hand Fork Logan            | 4 trails                          | 6.4                                    |
| Mount Logan North                | 2 trails                          | 4.0                                    |
| Mount Logan South                | 3 trails                          | 10.2                                   |
| <i>Elk Valley</i>                | <i>2 trails</i>                   | 5.7                                    |
| Mollens Hollow                   | 7 trails                          | 7.5                                    |
| Willard                          | 4 trails                          | 8.0                                    |
| Lewis Peak                       | 6 trails                          | 16.5                                   |
| Hogsback                         | 3 trails                          | 2.0                                    |
| <i>Mueller Park</i>              | <i>2 trails</i>                   | 5.9                                    |
| Twin Peaks                       | 1 trail                           | 2.8                                    |
| Mount Olympus                    | 1 trail                           | .2                                     |
| Stansbury                        | 4 trails                          | 16.8                                   |
| Lakes                            | 10 trails                         | 13.2                                   |
| High Uintas                      | 14 trails                         | 16.4                                   |

Sources: District Travel Plans and GIS mapping.

In addition, almost all roadless areas on the Forest have some trails used by mountain bikers. Topic 4 – Recreation includes further information about trails open to mechanized (mountain bike) use and the effects to users of those trails from inventoried roadless area management.

## Inventoried Roadless Area Evaluation for Wilderness Recommendation

Additions to the National Wilderness Preservation System are a long-term commitment made only by Congressional designation. During the forest planning process, national forests are required to inventory their roadless areas, evaluate the wilderness values of these areas, and recommend to Congress those areas that meet the capability, availability and need criteria for wilderness designation. For a detailed description and map of each roadless area being considered in the wilderness evaluation process and rationale on capability, availability, and need for each roadless area, see Appendix C-1 of the FEIS.

## Environmental Consequences for Wilderness Characteristics

### General Effects

In this section effects on inventoried roadless areas are considered with regard to effects on Wilderness character. Wilderness characteristics include solitude, the naturalness of the environment, opportunities for primitive recreation and challenging experiences and other special values. Appendix C-1 describes the wilderness characteristics of each inventoried roadless area. This evaluation assumes areas assigned the 1.5, 2.4 and 2.6 management prescriptions will maintain the wilderness characteristics described in Appendix C-1.

Appendix C-1 of this document contains detailed information about each individual inventoried roadless area with respect to its potential Wilderness character, the process used to evaluate the areas, the acreage of specific areas that were recommended for wilderness in each alternative and location maps. Tables are also included in Appendix C-1 that list by alternative the amount of wilderness acres recommended, acres protecting roadless values, and miles of motorized travel plan trails and roads open.

In this analysis, the Roadless Area Conservation Rule (RACR) has been applied in Alternatives 1, 2, and 6. Effects on inventoried roadless area management have been evaluated with the consideration that under the RACR, road construction and reconstruction are not allowed in inventoried roadless areas nor is cutting, sale, or removal of timber except: for the cutting, sale or removal of generally small diameter trees which maintains or improves roadless characteristics and: 1) to improve habitat for threatened, endangered, proposed, or sensitive species, or 2) to maintain or restore ecosystem composition and structure, such as reducing the risk of uncharacteristic wildfire effects.

Protection of Wilderness character can be evaluated by prescription and by the intent expressed in the alternative theme. Table RA-5 shows the total inventoried roadless acres recommended for wilderness, and total acres of wilderness characteristics protected (prescriptions 1.5 + 2.4 + 2.6.). The acreage managed under management prescription 2.4 (Research Natural Areas) does not vary substantially across alternatives when it is considered in the context of the overall size of the roadless/Wilderness protection issue and the effects of differences between alternatives with respect to Wilderness character.

Alternative 1 has the largest Wilderness recommendation (64% of roadless acreage) and a large amount of acreage managed under management prescription 2.6; it also applies the protections the National Roadless Area Conservation Rule to all inventoried roadless areas. Because of these factors it is the alternative that is most protective of Wilderness character.

Alternative 2 also provides the second largest Wilderness recommendation (24% of roadless acreage) and applies the 2.6 prescription to more acres than in any other alternative.

Alternative 3 provides for the smallest Wilderness recommendation (8% of roadless acreage) and protection of Wilderness character of any alternative that recommends Wilderness.

Alternatives 4 and 5 are not intended to manage roadless areas to protect Wilderness character.

Alternatives 6 and 7 are similar in the acreage recommended for Wilderness (11 and 12 % of roadless acreage respectively). Looking more closely, two primary differences are that 1) in Alternative 6 a portion of the Mt. Naomi roadless area adjacent to the south end of Mt. Naomi Wilderness is recommended for wilderness that is not recommended in Alternative 7, and 2) in Alternative 7 the Lakes recommended wilderness is larger than in Alternative 6. Alternative 7 also refined mapping done in Alternative 6 to provide a more manageable boundary for the proposed High Uintas Wilderness and to provide for more active management treatment in some roadless areas of the High Uintas that were not recommended for Wilderness.

**Table RA-5  
Recommended Wilderness and  
Wilderness Character Protected by Alternative\***

| Prescription                               | Alternative |         |         |       |       |         |         |
|--------------------------------------------|-------------|---------|---------|-------|-------|---------|---------|
|                                            | 1           | 2       | 3       | 4     | 5     | 6       | 7       |
| 1.5 Recommended Wilderness (acres)         | 387,000     | 145,500 | 51,100  | 0     | 0     | 69,000  | 73,300  |
| 2.4 RNAs and 2.6 Undeveloped Areas (acres) | 157,900     | 164,500 | 89,000  | 6,140 | 5,300 | 93,000  | 116,100 |
| Total                                      | 544,900     | 310,000 | 140,100 | 6,140 | 5,300 | 162,000 | 189,400 |

\*Acres in this table may vary slightly from acreages presented in other tables on roadless due to differences in rounding.

## Effects on Wilderness Characteristics in Inventoried Roadless Areas from Road Construction

Road construction can permanently affect Wilderness character, altering a natural appearing landscape. No road construction is allowed in Alternative 1, 2, or 6 in roadless areas, as covered by the Roadless Areas Conservation Rule. In Alternatives 3, 4, 5 and 7 a few miles of road construction are allowed in roadless areas.

## Effects on Wilderness Characteristics in Inventoried Roadless Areas from Timber Management

Timber management could affect wilderness characteristics in inventoried roadless areas by detracting from a sense of solitude during timber harvest activities and for the longer term by altering the natural environment with tree removal and road construction. Alternatives 1, 2, and 6 would have the least effects on wilderness characteristics from timber removal because the National Roadless Area Conservation Rule was applied in their development and generally prohibits road construction and the cutting, sale and removal of timber, except for removal of generally small diameter trees which maintains or improves roadless characteristics, TES species habitat, and maintains or restores ecosystem composition and structure. Wilderness

characteristics in inventoried roadless areas have the greatest potential to be altered in Alternatives 4 and 5, which allow timber harvest on 155,000 and 158,000 acres of tentatively suited inventoried roadless areas respectively. Alternative 3 allows timber harvest on about 61,000 of these acres. In Alternative 7, timber harvest is allowed on 64,000 acres.

### **Effects on Wilderness Characteristics in Inventoried Roadless Areas from Vegetation/Fuels Treatment**

Wilderness characteristics could be affected by mechanical vegetation and fuels treatments. Estimates of the acres of these treatments by alternative are quite small compared to total inventoried roadless acreage. As oakbrush treatment is most likely in fire prone areas in urban interface (non-roadless areas), it is unlikely that any wilderness characteristics within inventoried roadless will be affected by these potential treatments. Of the 7 alternatives, Alternative 7 has the largest acreage proposed for oakbrush mechanical treatments. Similarly, mechanical vegetative treatments in aspen/conifer would most likely occur in roaded areas far more often than in areas where not roads are present. Alternatives 2 and 4 proposed the most aspen/conifer treatment. (See Table 2-2.)

### **Effects on Wilderness Characteristics in Inventoried Roadless Areas from Fire Management**

Fire management includes wildland fire use, prescribed fire, and fire suppression. Wilderness characteristics of solitude, primitive recreation experiences and natural landscapes (untrammelled by human activities), are not likely to be affected by the allowance of wildland fire use and prescribed fire in inventoried roadless areas. Wildland fire use that is allowed in all alternatives, is a natural occurring event, is thus entirely compatible with wilderness character. Prescribed fire is allowed in all inventoried roadless in all alternatives except Alternative 1. In Alternatives 2-7 prescribed fire could change the appearance and functioning of vegetation, watershed, soils and other elements in natural systems that are integral to the wilderness setting and experience. However, modifying these effects might be to a landscape, they are not outside the capacity of natural systems to produce such effects, and thus are not likely to affect overall wilderness character. The landscape is not necessarily any less natural, and primitive recreation experience or availability of solitude are not necessarily lessened. Fire suppression activities are possible in any in inventoried roadless (even recommended wilderness) depending on potential risks to life and if risks to values outside a roadless (read recommended wilderness) are ascertained. Choices for suppression techniques would require consideration of effects on roadless values and wilderness characteristics, and employ minimum tool philosophies in alternatives where wilderness had been recommended: Alternatives 1, 2, 3, 6, and 7.

### **Effects on Wilderness Characteristics in Inventoried Roadless Areas from Recreation Management**

Recreation management could allow user densities to increase so that wilderness characteristics of solitude are impaired or the natural environment is altered by human recreation use. By recommending large amounts as wilderness in Alternative 1, solitude and remoteness are more

likely to be maintained because motorized and mechanized access would not be allowed. The risk of effects to the naturalness of the environment caused by improper off road use by vehicles is lessened. Effects on wilderness characteristics from Alternatives 2, 3, 6 and 7 could be somewhat greater than in Alternative 1, because less area is recommended as wilderness. Recreation as practiced in Alternatives 4 and 5 poses the greatest risks to wilderness characteristics in inventoried roadless areas, as no acres are recommended as wilderness and user densities and use types are likely the least compatible with wilderness characteristics.

### **Effects on Wilderness Characteristics in Inventoried Roadless Areas from Recreation Use**

Alternatives that provide for the highest percentage of primitive or semi-primitive non-motorized recreation in inventoried roadless areas are those that are most protective of wilderness characteristics. As such, Alternative 1 best protects Wilderness Characteristics, followed in descending order of protection of Wilderness characteristics by Alternatives 2, 7 and the Existing Condition, 6, 3, and 5. The 1985 Forest Plan as mapped provided only 209,800 acres of semi-primitive non-motorized. (See Table RA-11 in the section that follows this on Effects on Roadless Area Values for acreages of ROS within inventoried roadless areas.)

### **Effects on Wilderness Characteristics in Inventoried Roadless Areas from Winter Motorized Recreation Use**

The Wilderness characteristics of solitude and a primitive recreation can be adversely affected by the use of snowmobiles. In Alternatives 1-6 snowmobiling is not allowed in any recommended Wilderness, so there would be no effects to wilderness characteristics from snowmobiling in these alternatives in those roadless areas protected by a wilderness recommendation. In roadless areas not recommended for wilderness in Alternatives 1-6, snowmobiling will detract from a primitive winter recreation experience. In Alternative 7, snowmobiling is allowed in recommended wilderness where current use exists. Snowmobile use (noise, fumes, tracking of snow conditions, possible effects on wintering wildlife) will affect wilderness character in these areas during the periods in which the use occurs. In Alternative 7, areas in which wilderness characteristics may be affected by snowmobiling are 38,000 acres in the Lakes recommended wilderness, 2125 acres the High Uintas recommended wilderness, and 48 acres in Upper South Fork recommended wilderness.

Like snowmobiling, in all alternatives where heliski operations are allowed (Alternatives 3-7), heliski operations can be expected to negatively affect primitive winter recreation and solitude. This detracts from wilderness character. Heliski operations, however, are not allowed in any recommended Wilderness in any alternative, therefore cannot effect wilderness characteristics in those roadless areas where wilderness has been recommended.

### **Effects on Wilderness Characteristics in Inventoried Roadless Areas 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. It is estimated to be about 68,300 acres.

Oil and gas activities such as exploratory drilling, oil and gas field development and other activities that involve the construction of roads, wellsites and other facilities would adversely affect the naturalness, remoteness/solitude, integrity, and other wilderness characteristics. The impacts associated with the drilling of a single exploratory well would adversely affect the characteristics associated with the roadless areas. These impacts would be of relatively limited area and of short duration and once drilling and reclamation is completed the impacts to the roadless characteristics 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 would be long term and significant. Vehicular traffic and human activities associated with a developed oil field would directly affect the sense of remoteness and solitude. The presents of roads, wellsites, pipelines and other facilities would be incompatible with the natural integrity. If oil and gas were discovered and production undertaken, there would be a direct loss of roadless acres for the life of development and for some time after while reclamation returns the area to a more natural setting.

The decision being made in the Forest Plan affects new leases not existing ones. In all alternatives (except Alternative 4), an area of existing leases, the Table Top Unit, could be explored and result in effects to wilderness characteristics.

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 wilderness characteristics within the inventoried roadless area. These characteristics could be affected on an estimated 20 acres because of oil and gas exploration activities. Once existing leases expire, Alternative 1 provides the greatest protection to wilderness characteristics. Alternative 2 is very similar. Again, development of existing leases within the Table Top Unit could affect the wilderness characteristics 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 direct impacts to the wilderness characteristics within the inventoried roadless areas would occur but there may be some indirect affects to solitude and remoteness if directional drilling occurred from adjacent lands since an access road would likely be constructed to the drill site and the sounds associated with construction and drilling may be heard within the inventoried roadless area.

Alternative 3 precludes new leases in areas recommended for wilderness and does not allow surface occupancy in areas managed for undeveloped, backcountry recreation values areas of terrestrial habitat. Additional new leases could be issued outside the areas listed above with stipulations applied to protect sensitive resources. Oil and gas activities are estimated to disturb the natural appearance on about 75 acres. Some of the development predicted from existing leases within the Table Top Unit could be within areas high in wilderness characteristics. Solitude and remoteness could be affected on a much larger scale. Some of the effects to wilderness characteristics could last 20-30 years because of field development.

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.

Alternative 5 would provide for leasing with standard lease terms, and therefore provide the greatest opportunity for full field development. Wilderness characteristics could be significantly affected. Oil and gas activities are estimated to disturb the natural appearance on about 105 acres. The solitude and remoteness could be affected to a greater degree because of the sights and sounds of development beyond the actual disturbed area. Some of the effects to wilderness characteristics 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 recreation values and terrestrial habitat in the lower part of the Hayden Fork, Stillwater Fork and East Fork of the Bear River drainages. The wilderness characteristics present in these areas would continue to be affected. Within this area the degree of effects from Alternative 6 is less than Alternative 3. In the remainder of the area the effects to wilderness characteristics would be minimal because of no surface occupancy.

Alternative 7 would not allow leasing on 20,400 acres recommended for wilderness. About 20,900 acres would be leased with no surface occupancy. Under these two situations, wilderness characteristics would be maintained. Surface occupancy would be allowed on the remaining 27,000 acres. Of this acreage, oil and gas activities are estimated to disturb the natural appearance on about 85 acres. The solitude and remoteness could be affected to a greater degree because of the sights and sounds of development beyond the actual disturbed area. Some of the effects to wilderness characteristics could be affected 20-30 years should a field be discovered. 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.

### **Effects on Wilderness Characteristics from Mineral and Land Ownership**

Several inventoried roadless areas have privately owned minerals. Since the federal government has no authority to deny development of those minerals, they pose a risk to wilderness characteristics in inventoried roadless areas should they ever be developed. Privately owned minerals pose the greatest risk to wilderness characteristics in recommended wilderness. Alternative 1, followed by Alternatives 6, 3, and 7 have the most acres in recommended wilderness with private minerals. Alternative 2 has only a few acres of private minerals. Alternatives 4 and 5 have none, because there is no recommended acreage. Roadless areas with wilderness recommendations that have a high percentage of their acreage with private mineral rights are Upper South Fork, Burch Creek, Twin Peaks (Deaf Smith and Little Cottonwood portion), and Lone Peak. The High Uintas roadless area has 6,500 acres of private minerals, although this is only about 6% of its total acreage.

**Table RA-6**  
**Mineral Ownership in Recommended Wilderness**

| <b>Alternative</b> | <b>Federal Surface and Minerals</b> | <b>Federal Surface and Private or State Minerals</b> |
|--------------------|-------------------------------------|------------------------------------------------------|
| <b>1</b>           | 344,531                             | 44,193                                               |
| <b>2</b>           | 145,778                             | 155                                                  |
| <b>3</b>           | 42,590                              | 8,873                                                |
| <b>4</b>           | 0                                   | 0                                                    |
| <b>5</b>           | 0                                   | 0                                                    |
| <b>6</b>           | 61,017                              | 8,944                                                |
| <b>7</b>           | 65,065                              | 8,416                                                |

Surface land ownership can also pose a risk to wilderness characteristics in inventoried roadless areas should they ever be developed.

There is one private inholding remaining in the Mount Olympus Wilderness and two private inholdings remaining in the Twin Peaks Wilderness. The other four wilderness areas on the Forest have no private inholdings. Alternative 1 includes the most amounts of private and state inholdings within recommended wilderness, Alternative 2 has some, and other alternatives have none. Alternatives also vary by the amount of recommended wilderness adjacent to private land. Alternatives 1 and 2 have the greatest amount of miles of private land next to recommended wilderness, which may affect access and increase the potential for motorized trespass. The Upper South Fork roadless area (recommended for wilderness in Alternatives 1, 3, 6, and 7) is almost completely surrounded by private land.

**Table RA-7**  
**Adjacent Private Land**  
**Miles Next to Recommended Wilderness**

| <b>Alternative</b> | <b>Miles of Adjacent Private Land next to Recommended Wilderness</b> |
|--------------------|----------------------------------------------------------------------|
| <b>1</b>           | 169                                                                  |
| <b>2</b>           | 15                                                                   |
| <b>3</b>           | 28                                                                   |
| <b>4</b>           | 0                                                                    |
| <b>5</b>           | 0                                                                    |
| <b>6</b>           | 30                                                                   |
| <b>7</b>           | 26                                                                   |

## Cumulative Effects

Other Forests in the state of Utah are completing forest plans or scheduled to complete them. The Uinta and Caribou National Forests are planning concurrently with the Wasatch–Cache. The Ashley National Forest is scheduled to begin Forest Plan revision in the near future.

Alternatives presented in these forest plan revisions have some recommended wilderness adjacent to the Wasatch-Cache.

Generally, much of the roadless areas recommended for wilderness in all alternatives are typical of wilderness that has already been designated both nationally and within the state of Utah and will not significantly add to the diversity of lands in the Wilderness Preservation System. An exception to this is the Upper South Fork roadless area, which is somewhat different than much of the current higher elevation wilderness areas. Currently, large tracts of lands administered by the Bureau of Land Management in the state of Utah are being evaluated for wilderness proposals. Additions of these lands to the system could generally add more land type diversity than much of the additional National Forest roadless lands. The BLM does have adjacent Wilderness Study Areas on the north and south ends of the Stansbury roadless area.

Some of the best snowmobiling opportunities in the nation and state are on roadless areas of the Wasatch-Cache. Alternatives with high amounts of recommended wilderness could significantly affect winter motorized recreation use on the Forest, except in Alternative 7, which accommodates some use by allowing use in recommended Wilderness where there is existing snowmobile use. There are also significant summer motorized travel plan trail opportunities in several roadless areas. Motorized recreation users could be displaced to other lands in alternatives with large Wilderness recommendations (Alternatives 1, and 2.) If other national forests and public land management agencies were to adopt similar alternatives, snowmobiling, motorized recreation, and undeveloped motorized camping could be reduced in the surrounding public lands.

Ultimately, in all alternatives, with projected population growth, demand for high quality wilderness recreation opportunities on the forest will be exceeded by user numbers, especially in smaller Wilderness adjacent to population centers. Under Alternatives 3, 4, and 5, it is expected that growth in demand for motorized recreation and non-motorized might be met for a longer period of time by allowing more of these uses on the Wasatch-Cache.

## **Environmental Consequences for Roadless Area Values**

### **General Effects**

**This is a new section in the FEIS. It describes general effects to roadless area values from the Wasatch-Cache forest plan alternatives. Appendix C-2 is also new, and closely related to this general effects section. Appendix C-2 provides detailed information on the methods used to assess roadless area values, the values of each roadless area on the Wasatch-Cache, and effects on each area from alternatives.**

### **Introduction - Values of Roadless Areas**

Roadless areas possess social and ecological values and characteristics that are becoming scarce in an increasingly developed landscape. They provide unique opportunities for non-motorized and motorized recreation in a primitive or semi-primitive setting, sources of clean drinking water, and large undisturbed landscapes that offer privacy and seclusion. These areas support a

diversity of habitats for native plants and animal species, conserve biological diversity and provide opportunities for study and education. The roadless areas in the Wasatch-Cache National Forest provide these values to differing degrees. Some areas have very large, pristine, undisturbed environments, while others are less diverse and have areas that reveal past or current development and in some cases, resource damage.

### **High, Medium, and Low Value Roadless Areas**

The 34 roadless areas identified on the forest were evaluated individually in Appendix C-2. An interdisciplinary team exercise was conducted to summarize this information on each roadless area, and sort the 34 areas into three sets, those of high value, medium value or low value with respect to their overall need for protection of their roadless values. Every roadless areas had at least one highly rated roadless value, however, a few areas had a preponderance of higher rated values, more moderate values or lower values. In the interdisciplinary team's judgment, the following division was made.

#### Roadless areas of High value (5): (326,800 acres)

- High Uintas
- Mt. Naomi
- Upper South Fork
- Stansbury
- Lakes

#### Roadless areas of Medium value (21): (230,000 acres)

- Gibson
- Temple Peak
- Right Hand Fork Logan
- Mt. Logan North
- Mt. Logan South
- Mt. Logan West
- Boulder Mountain
- Mahogany Range
- Mollens Hollow
- Swan Creek
- Sugar Pine
- Willard
- Lewis Peak
- Francis
- Farmington
- Red Butte
- Mount Aire
- Twin Peaks
- Mount Olympus
- White Pine
- Lone Peak

Roadless areas of Low value (8): (49,200 acres)

- Elk Valley
- Wellsville
- Rock Creek/Green Fork
- Burch Creek
- Hogsback
- Mueller Park
- Nobletts
- Widdop Mountain

**Management Prescriptions and effects on roadless values**

Management prescriptions that are applied to a roadless area are principal management direction for what practices are intended for the area. This analysis uses management prescriptions as indicators for potential effects to the roadless values identified in Appendix C. The analysis is considered from a forestwide perspective in this Chapter, and itemized for individual roadless areas in Appendix C-2.

The details of what is allowed by management prescription by alternative are presented in Chapter 2. The activity allowances considered for each prescription are: Timber Harvest, Vegetation/Fuel Treatment, Prescribed Fire, Road Building, Grazing, Wildland Fire Use, New Recreation Development, and New Trail Construction. Whether or not these activities are allowed under each management prescriptions varies based on the intent of the alternative. Allowed activities also may vary based on whether the prescription is applied in or outside an inventoried roadless area in some alternatives.

For this analysis management prescriptions are placed in one of three categories that identify different potential effects to roadless area values. These three categories are defined as:

1. **Maintains Roadless Values** – Management prescriptions that do not allow any development that might affect base physical values dependent on roadlessness (soils, watershed, vegetation). These do not allow any timber harvest, road building, mechanical fuel treatments, new trail construction, or new recreation development.
2. **Mostly Maintains Roadless Values** – Management prescriptions that allow types of development (such as new trail construction, mechanical fuels treatment, and backcountry or recreation non-motorized recreation developments) which may have short term or relatively minor effects on physical values dependent on roadlessness.
3. **Allows Development** – Management prescriptions that allow noticeable and substantial long-term changes to the physical values in roadless areas (especially soils, watershed, and appearance of vegetation). Activities in this category include timber harvest, road building, and substantial recreation developments (new campgrounds, campground expansion, major trailhead or day-use site construction).

## Underlying Assumptions

Existing designated Wilderness acres (management prescriptions 1.1-1.4) are not included in this analysis of effects on roadless areas. Management prescription 8.1 is also not included in this analysis, as it is never applied in a roadless area.

**Timber harvest and road building** -Timber harvest and/or road building can affect roadless character. These activities can fundamentally change a roadless area because of the changes in vegetation over broad areas, and the construction process and width of roads. In Alternatives applying the Roadless Rule (1, 2, and 6) timber harvest and road building are not allowed. However, other activities such as trail construction and recreation development were not prohibited by the Rule and are allowed in various prescriptions in these alternatives that do not allow harvest and road building.

**Wildland fire use, prescribed fire, grazing** – These activities do not affect the basic physical values or character dependent on roadlessness. While vegetation composition, structure, and pattern may be changed from these activities, the changes are similar to those that would be expected under the dominant influence of natural processes. Substantially recognizable changes to the physical character of the roadless area are not expected from these activities.

**Vegetation/fuel treatments** – These activities may be viewed by some as having an affect on roadless character because of the nature of results of mechanical treatment, at least over the short term. However, these effects are expected to be much shorter term and of less magnitude than most timber harvest and/or road construction operations. Therefore, prescriptions that allow vegetation/fuel treatment but not timber harvest or road construction are placed in the “mostly maintains roadless values” category.

**New trail construction** - New trail construction can affect roadless character, but to a lesser extent than timber harvest or road building given the limited vegetation clearing, construction process and narrower width of trails. Prescriptions that allow new trail construction were placed in the mostly maintains roadless values category.

**New recreation development** - New recreation development varies somewhat in its potential effects on roadless values depending on the nature of the management prescription. Although Management Prescriptions 4.1, 4.2 and 4.3 allow new recreation development, these are not expected to have a substantial affect on roadless character. Any recreation development under these prescriptions would be tied to the intent of the prescription and relatively light on the landscape because of the lower recreation densities associated with backcountry recreation in 4.1 and 4.3 and the non-motorized aspect of 4.2. Therefore, these prescriptions were categorized as mostly maintains roadless values. Management prescriptions 4.4 and 4.5 however allow new recreation development to provide for higher user densities and motorized or developed activities. These activities are expected to have a substantial effect on roadless area values and are categorized as “allows development”.

Given these assumptions and using the management prescriptions allowed activities tables in Chapter 2 of this FEIS, Table RA-8 summarizes potential effects to roadless area values from the forest plan alternatives.

**Table RA-8. Groupings of Management Prescriptions (MPCs) by Alternatives and Categories of Effects to Roadless Values**

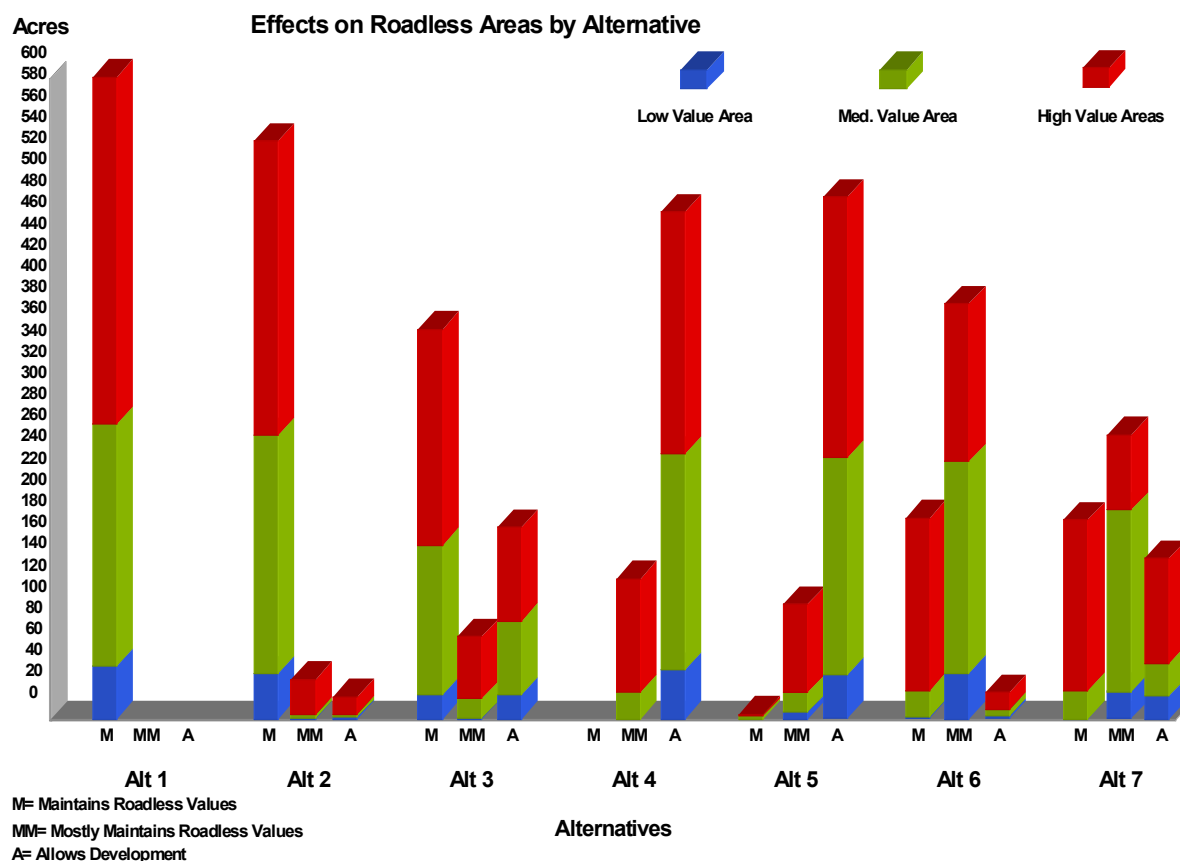
| <b>Alternative</b> | <b>MPCS that Maintain Roadless Values</b> | <b>MPCS that Mostly Maintain Roadless Values</b>     | <b>MPCS that Allow Development</b>                        |
|--------------------|-------------------------------------------|------------------------------------------------------|-----------------------------------------------------------|
| <b>Alt 1</b>       | All MPC's                                 | No MPC's                                             | No MPC's                                                  |
| <b>Alt 2</b>       | All other MPC's                           | 4.1, 4.2, 4.3                                        | 4.4, 4.5                                                  |
| <b>Alt 3</b>       | 1.5, 2.4, 2.6, 3.1, 3.2                   | 2.7, 4.1, 4.2                                        | 2.5, 4.3, 4.4, 4.5, 5.1, 5.2, 6.1, 6.2, 5.1/6.1           |
| <b>Alt 4</b>       | No MPC's                                  | 2.4, 2.6, 2.7, 4.1, 4.2                              | 2.5, 3.1, 3.2, 4.3, 4.4, 4.5, 5.1, 5.2, 6.1, 6.2          |
| <b>Alt 5</b>       | 2.4, 2.6                                  | 2.7, 4.1, 4.2                                        | 2.5, 3.1, 3.2, 4.3, 4.4, 4.5, 5.1, 5.2, 6.1, 6.2, 5.2/6.2 |
| <b>Alt 6</b>       | 1.5, 2.4, 2.5, 2.6, 2.7                   | 3.1, 3.2, 4.1, 4.2, 4.3, 5.1, 5.2, 6.1, 6.2, 5.1/6.1 | 4.4, 4.5                                                  |
| <b>Alt 7</b>       | 1.5, 2.4, 2.6                             | 2.7, 3.1A, 3.1W, 3.2U, 4.1, 4.2                      | 2.5, 3.2D, 4.3, 4.4, 4.5, 5.1, 5.2, 6.1, 6.2, 5.1/6.1     |

Table RA-9 shows the acres of high, medium and low value roadless areas whose roadless values are maintained, mostly maintained or allow development based on the prior categorization.

**Table RA-9. Categories of Allowed Activities and Potential Effects on Roadless Areas**

| Alternatives and Areas of high, medium, and low value |              | Maintains Roadless Values (acres) | Mostly Maintains Roadless Values (acres) | Allows Development (acres) | Total (acres) |
|-------------------------------------------------------|--------------|-----------------------------------|------------------------------------------|----------------------------|---------------|
| ALT 1                                                 | high value   | 326,800                           | 0                                        | 0                          | 326,800       |
|                                                       | medium value | 230,000                           | 0                                        | 0                          | 230,000       |
|                                                       | low value    | 49,200                            | 0                                        | 0                          | 49,200        |
| ALT 1 Total                                           |              | 606,000                           | 0                                        | 0                          | 606,000       |
|                                                       |              |                                   |                                          |                            |               |
| ALT 2                                                 | high value   | 276,100                           | 35,900                                   | 14,800                     | 326,800       |
|                                                       | medium value | 224,500                           | 2,600                                    | 2,900                      | 230,000       |
|                                                       | low value    | 45,600                            | 700                                      | 2,900                      | 49,200        |
| ALT 2 Total                                           |              | 546,200                           | 39,200                                   | 20,600                     | 606,000       |
|                                                       |              |                                   |                                          |                            |               |
| ALT 3                                                 | high value   | 200,800                           | 38,100                                   | 87,900                     | 326,800       |
|                                                       | medium value | 141,800                           | 19,500                                   | 68,600                     | 230,000       |
|                                                       | low value    | 24,300                            | 500                                      | 24,400                     | 49,200        |
| ALT 3 Total                                           |              | 366,900                           | 58,100                                   | 180,900                    | 605,900       |
|                                                       |              |                                   |                                          |                            |               |
| ALT 4                                                 | high value   | 0                                 | 106,100                                  | 220,600                    | 326,700       |
|                                                       | medium value | 0                                 | 25,800                                   | 204,200                    | 230,000       |
|                                                       | low value    | 0                                 | 0                                        | 49,200                     | 49,200        |
| ALT 4 Total                                           |              | 0                                 | 131,900                                  | 474,000                    | 605,900       |
|                                                       |              |                                   |                                          |                            |               |
| ALT 5                                                 | high value   | 2,000                             | 83,400                                   | 241,300                    | 326,800       |
|                                                       | medium value | 5,300                             | 19,000                                   | 205,700                    | 230,000       |
|                                                       | low value    | 0                                 | 7,400                                    | 41,800                     | 49,200        |
| ALT 5 Total                                           |              | 7,200                             | 109,900                                  | 488,800                    | 605,900       |
|                                                       |              |                                   |                                          |                            |               |
| ALT 6                                                 | high value   | 165,000                           | 143,800                                  | 18,000                     | 326,800       |
|                                                       | medium value | 25,700                            | 199,800                                  | 4,400                      | 230,000       |
|                                                       | low value    | 500                               | 45,800                                   | 2,900                      | 49,200        |
| ALT 6 Total                                           |              | 191,200                           | 389,400                                  | 25,300                     | 605,900       |
|                                                       |              |                                   |                                          |                            |               |
| ALT 7                                                 | high value   | 162,000                           | 68,900                                   | 95,900                     | 326,800       |
|                                                       | medium value | 27,300                            | 171,100                                  | 31,600                     | 230,000       |
|                                                       | low value    | 0                                 | 26,600                                   | 22,500                     | 49,200        |
| ALT 7 Total                                           |              | 188,700                           | 267,400                                  | 149,900                    | 605,900       |

Figure RA-1 shows the same information as Table RA-9 in a chart.



## Direct and Indirect Effects

Roadless area values that could be affected from the following activities listed below are those that are defined in Appendix C-2. Differing effects to the listed values will be dependent on the values that are present in particular area, and the nature of the activity. The following are generalized forestwide considerations, which lack site specificity, but that may help summarize the relationships between various potential actions and roadless area values.

### Effects on Inventoried Roadless Area Values from Road Construction

For the 15-year period of the Forest Plan, some new road construction into roadless areas is allowed in Alternatives 3, 4, 5 and 7 that do not apply the prohibition on road construction and reconstruction as prescribed by the National Roadless Conservation Rule. No road construction and reconstruction is allowed in roadless areas in Alternatives 1, 2, and 6; the one exception is from existing oil and gas leases in the High Uintas and Lakes Roadless Areas. Road construction in any roadless area under any alternative is expected to be limited during this planning period.

## **Effects on Inventoried Roadless Area Values from Timber Management**

Roadless area values that could be affected from timber management include potential effects from harvest and associated roads on the roadless area values defined in Appendix C-2.

Alternatives 1, 2, and 6 have the least potential timber management effects on inventoried roadless area values, because the National Roadless Area Conservation Rule generally prohibits road construction or reconstruction and the cutting, sale and removal of timber, except for removal of some generally small diameter trees which would maintain or improve roadless characteristics, TES species habitat, and maintain or restore ecosystem composition and structure. Undisturbed landscapes found in inventoried roadless areas could be altered in Alternatives 3, 4, 5 and 7 to differing degrees. Within inventoried roadless areas timber harvest could be allowed (based on prescription) on an estimated 61,000 acres in Alternative 3, 155,000 acres in Alternative 4, 158,000 acres in Alternative 5, and 63,500 acres in Alternative 7. Timber harvest activities also increase the risk to impairing water quality and affect habitat for some species. Specific guidance in the proposed forest plan however, provides protection for water resources during timber harvest operations. Effects on these inventoried roadless area values are further discussed in the watershed and biodiversity topics.

## **Effects on Inventoried Roadless Area Values from Vegetation/Fuels Treatment**

It is unlikely that many mechanical vegetation and fuels treatments would be undertaken in inventoried roadless areas, as other roaded parts of the forest (wildland-urban interface especially) would almost always have higher priority for the limited funding available. However, within inventoried roadless areas allowances for vegetation and fuels treatments do vary by alternative. Alternative 1 does not allow vegetation and fuels treatments in inventoried roadless. In Alternative 2, vegetation and fuels treatments are allowed 460,000 acres of inventoried roadless areas (all areas not recommended for Wilderness). In Alternative 3, vegetation and fuels treatments are allowed 554,900 acres of inventoried roadless areas (all areas not recommended for Wilderness). Alternatives 4 and 5 allow vegetation and fuels treatments on all inventoried roadless. Alternative 6 allows vegetation and fuels treatments on 537,000 acres of inventoried roadless areas (all areas not recommended for Wilderness). Alternative 7 allows vegetation and fuels treatments on 423,000 acres of inventoried roadless areas (all areas not recommended for Wilderness and in MPC 2.6).

## **Effects on Inventoried Roadless Area Values from Fire Management**

The fire management category includes prescribed fire, wildland fire use, and fire suppression. All three fire management activities are allowed in inventoried roadless areas, with the exception of Alternative 1, in which prescribed fire is not allowed. Prescribed fire and wildland fire use ought to have no effect in any alternative to inventoried roadless values. Planning for these activities would need to take into account the nature of the values in any particular area. The use of some fire suppression actions could be limited by the roadless nature of these areas. If fire suppression actions required ground-disturbing activities to build road or fireline, effects to

roadless values could occur. Construction of fireline or other ground disturbing activities can usually be mitigated in post fire operations.

### **Effects on Inventoried Roadless Area Values from Recreation Management**

Inventoried roadless area values that could be affected from recreation management include semi-primitive non-motorized and semi-primitive motorized settings for undeveloped recreation activities, clean drinking water, and wildlife habitat.

Recreation management could affect roadless areas if new facilities and new roads are built and left open for recreation access in roadless areas. Recreation management could also affect roadless area characteristics if recreation use was managed to such densities that semi-primitive character was lost, or if recreation was improperly managed to the degree water quality was impaired.

In Alternative 1 with motorized and mechanized recreation restricted in about 360,000 acres that are recommended as wilderness, user densities could increase in the remaining inventoried roadless areas; however, it is unlikely that user densities would increase to the degree that semi-primitive settings are compromised. Effects from recreation management in Alternatives 2,3,6, and 7 would be similar to that described for Alternative 1, in that displacement from recommended wilderness could occur to areas where more motorized uses are allowed. Alternatives 4 and 5 allow some new recreation facilities or road construction in inventoried roadless areas that may affect their semi-primitive character, however, it is unlikely that forest budgets would be sufficient to allow much development, particularly in inventoried roadless. Standards and guidelines that are common to all alternatives for water quality and properly managed recreation will reduce the risk of impaired water quality.

### **Effects on Inventoried Roadless Area Values from Recreation Use**

Recreation Opportunity Spectrum – The following discussion refers to Table RA-10 that shows the forestwide allocations to ROS categories in inventoried roadless areas. The 1985 Forest Plan mapped ROS and winter recreation for the Wasatch-Cache; these mappings were never fully implemented as management direction. Acreage totals for current on the ground recreation settings and experiences in roadless areas are shown in the Existing Conditions column in Table RA-10. This is presented so the reader can make a comparison to the current setting, which is managed under current Travel Management Plans. In the ROS table below only non-snow conditions are accounted for; considerations for winter recreation are presented later. Across the range of alternatives inventoried roadless areas include allocations to all Recreation Opportunity Spectrum categories except Urban.

Allocations of acreage to non-motorized recreation (only the Semi-Primitive Non-Motorized category) are highest in Alternative 1, and next highest in Alternative 2. Alternative 5 provides the least acreage to this category. Alternatives 6, 7, and the Existing Condition are about equal. Alternative 3 falls between the extremes of the other alternatives.

The existing condition in roadless areas for motorized recreation provides 239,100 acres within motorized recreation ROS categories (the sum of Rural, Roaded-Natural, and Semi-Primitive Motorized); Alternative 7 provides the same amount. Alternative 5 has the most acreage in motorized ROS categories for inventoried roadless areas – 325,400, and Alternative 1 has the least – 112,900. Alternative 2 has 221,800 acres; Alternative 3 has 254,900 acres; Alternative 4 has 364,900 acres; and Alternative 6 has 241,100 acres.

Summer motorized use is restricted to designated Forest system roads and motorized trails. While the acreage allocations shown in the ROS tables might seem to indicate that large areas are for available motorized use, in fact the area actually available for use is considerably smaller and limited to appropriate routes. ROS for motorized categories shows areas where the influence (sights, sounds) of motorized use may be expected by a forest visitor.

**Table RA–10. Recreation Opportunity Spectrum allocation in Roadless Areas**

| Recreation Opportunity Spectrum | 1       | 2       | 3       | 4/1985 Forest Plan | 5       | 6       | 7       | EC      |
|---------------------------------|---------|---------|---------|--------------------|---------|---------|---------|---------|
| NA*                             | 0       | 0       | 0       | 31,220             | 0       | 0       | 0       | 0       |
| Urban**                         | 0       | 0       | 0       | 0                  | 0       | 0       | 0       | 0       |
| Rural                           | 6,500   | 6,400   | 8,400   | 2,200              | 10,400  | 6,800   | 0       | 0       |
| Roaded Natural                  | 50,800  | 106,700 | 113,100 | 294,100            | 135,000 | 114,300 | 96,200  | 96,200  |
| Semi-Primitive Motorized        | 55,600  | 108,700 | 133,400 | 68,600             | 180,000 | 120,000 | 142,900 | 142,900 |
| Semi Primitive Non-Motorized    | 492,900 | 384,000 | 350,900 | 209,800            | 280,200 | 365,500 | 366,800 | 366,800 |

EC = Existing Condition - On the ground, current situation as managed by current Travel Plans.

\*NA – This acreage represents newly acquired lands since 1985 for which there was not management direction in the 1985 Forest Plan.

\*\* Less than 100 acres of Urban category ROS were mapped forestwide.

Winter Recreation - Motorized winter recreation use may negatively affect roadless values and recreation experiences for non-motorized winter users by introducing the sounds and presence of snowmobiles into a roadless area. Conversely, snowmobile enthusiasts often feel that their opportunities and experiences are constrained when acreage available for snowmobile use is reduced. Table RA-11 shows the acres and percentage of inventoried roadless areas available to snowmobiling (and by interpretation, those that are not available). Aside from the Winter Recreation setting mapped in the 1985 Forest Plan, Alternative 5 provides the most acreage in inventoried roadless for snowmobile use; Alternative 1 provides the fewest acres open to snowmobiling. The other alternatives fall in between these extremes.

One aspect of winter motorized recreation use, heliski operations, can affect non-motorized winter backcountry users in Alternatives 3, 4, 5, 6 and 7. These users would be affected to the same extent in Alternatives 4-7, and on different and fewer acres in Alternative 3 (See Winter Recreation maps for where the helicopter allocations occur within inventoried roadless areas on

the Wasatch Front.) Detailed information about where heliski operations are allowed within individual inventoried roadless areas can be found in Appendix C-2. Alternatives 1 and 2 that do not allow heliski opportunities would not affect these users. Heliski users and operators would be affected depending on whether an alternative allowed or did not allow the heliski opportunity on the Forest.

**Table RA-11. Acres in Inventoried Roadless Areas Open to Snowmobiling and Heliskiing**

|                              | 1      | 2      | 3       | 4/1985<br>Forest<br>Plan | 5       | 6       | 7       | EC      |
|------------------------------|--------|--------|---------|--------------------------|---------|---------|---------|---------|
| Acres Open to Snowmobiling   | 20,000 | 63,000 | 372,000 | 442,000                  | 437,000 | 310,000 | 305,100 | 396,100 |
| Percent Open to Snowmobiling | 3%     | 10%    | 61%     | 73%                      | 72%     | 51%     | 50%     | 65%     |
| Acres of Open to Heliski     | 0      | 0      | 12,000  | 17,000                   | 17,000  | 17,000  | 17,000  | 17,000  |

*EC = Existing Condition - On the ground, current situation as managed by current Travel Plans.*

## Effects on Inventoried Roadless Area Values 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 68,300 acres.

Since the Appeal Settlement Zone is coincident with much of the High Uintas Roadless Area, any development predicted in the ASZ would affect roadless values as stated below. Oil and gas activities and associated roads have potential impacts to roadless values. Oil and gas leasing varies by alternative. Refer to the description below for the differences in leasing by alternative. In areas that allow surface occupancy, roads would be constructed to access well pads. If the roads were made available to public travel, opportunities for motorized recreation would increase. Depending on the location of the development, some parts of the inventoried roadless area could be fragmented and isolated, reducing their ability to offer privacy and seclusion. Within the context of the appeal settlement zone, biological diversity would only be affected on a site specific scale. The risk of affecting water sources from oil and gas activities depends on the acres potentially disturbed and stipulations applied. The risk is more thoroughly described in Topic 1 – Watershed Health.

Though Alternative 1 does not allow new leasing in the Appeal Settlement Zone, development of existing leases within the Table Top Unit could affect roadless values on an estimated 20 acres. In areas outside of the Table Top Unit that are not currently leased there would be no effects.

Alternative 2 is very similar to Alternative 1. Again, development of existing leases within the Table Top Unit could affect roadless values 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.

Alternatives 1 and 2 offer the greatest protection of roadless values.

Alternative 3 precludes leasing on 18,200 acres recommended for wilderness and does not allow new leases with surface occupancy on 37,200 acres primarily managed for undeveloped (Prescription 2.6) and backcountry recreation (Prescription 4.1 and 4.2) values and terrestrial habitat (Prescription 3.2). New leases could be issued on about 2,500 acres with stipulations applied to protect sensitive resources. An estimated 10,400 acres are available under Standard Lease Terms. Of the 12,900 acres that allow surface occupancy, oil and gas activities are estimated to disturb about 75 acres. Some of this development is predicted on existing leases within the Table Top Unit. Roadless values most likely to be affected include non motorized recreation and the privacy and seclusion offered by an undisturbed landscape. These roadless values could be affected for 20-30 years because of field development.

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 roadless values 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 affect about 105 acres. Some of the effects could last 20-30 years because of field development. Mitigation measures could be required as conditions of approval to protect individual values.

In Alternative 6, leasing availability is precluded on 20,000 acres recommended for wilderness. 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 on the 3,600 acres managed for motorized recreation values and terrestrial habitat. Of this acreage, oil and gas activities are estimated to disturb about 75 acres. Some of this development is predicted on existing leases within the Table Top Unit. Roadless values could be affected for 20-30 years should a field be discovered. In the remainder of the area the effects to roadless values would be minimal because of no surface occupancy. Because of the low percentage of lands that allow surface occupancy, large undisturbed landscapes are more likely to remain intact.

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. Roadless values could be affected 20-30 years should a field be discovered. 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.

### **Effects on Inventoried Roadless Area Values from Mineral and Land Ownership**

Under any alternative, in roadless areas where there is non-federal mineral or land ownership, the ability to explore, make claims, and occupy lands for minerals (provided under the 1872 Mining

Act) and rights of access to private lands could compromise the values which have been identified for roadless areas (See Appendix C-2).

In roadless areas on the Wasatch-Cache private ownership of minerals occurs on 66,811 acres where there is federal surface ownership (Table RA-12). Most of these private mineral ownership situations occur along the Wasatch Front where few of the areas are recommended for Wilderness, except in Alternative 1. There is also substantial private minerals ownership in Upper South Fork and High Uintas roadless areas whose roadless values could be affected if development occurred under any alternative. Application of the non-development MPC 2.6 could create conflicts with management intent in Alternatives 1, 2, or 7 where that allocation is relatively common in the areas listed below.

**Table RA-12. Non-federal ownership of minerals in roadless areas**

| <b>Roadless Area</b> | <b>Acres</b> |
|----------------------|--------------|
| Mt. Logan North      | 1046         |
| Mt. Logan South      | 252          |
| Mollens Hollow       | 761          |
| Wellsville           | 15           |
| Sugar Pine           | 61           |
| Upper South Fork     | 8400         |
| Willard              | 11759        |
| Lewis Peak           | 8647         |
| Burch Creek          | 4404         |
| Francis              | 10052        |
| Farmington           | 6059         |
| Hogsback             | 3877         |
| Mueller Park         | 3511         |
| Mt. Olympus          | 374          |
| Twin Peaks           | 344          |
| Lone Peak Additions  | 319          |
| Nobletts             | 106          |
| Lakes                | 460          |
| High Uintas          | 6364         |
|                      |              |
| <b>TOTAL</b>         | <b>66811</b> |

The current status for non-federal land ownership is provided in Table RA-2. Private and State Inholdings within Inventoried Roadless Areas. The table shows that most inventoried roadless areas along the Wasatch Front have from 40 to a few hundred acres in non-federal ownership to which developed access by owners might be desirable, and which could be affected at any time. In Alternatives 1, 2, and 6 where the Roadless Areas Conservation Rule has been applied, roadless areas are to be protected from road construction, but access to private inholdings is an exception to that direction. Placing these roadless areas into management prescriptions where new road or other construction is not intended (1.5, 2.4, 2.6) might create administrative processes in Alternatives where that is the case, adding to management costs and possible controversy.

## Topic 5 – Wilderness Characteristics, Roadless Area Values, and Wilderness Management

### Wilderness Management

#### Introduction

There are seven existing wilderness areas on the Wasatch – Cache National Forest totaling 309,079 acres. This represents approximately 25 percent of Wasatch – Cache National Forest Service acreage and 38 percent of all the current wilderness areas in Utah State. The wilderness areas on the Forest are Lone Peak, Twin Peaks, Mount Olympus, Deseret Peak, Wellsville Mountains, Mount Naomi, and High Uintas. Lone Peak is shared with the Uinta National Forest and the High Uintas is shared with the Ashley National Forest.

#### Laws, Policy, and Direction

- **The Wilderness Act (1964)** - Established a National Wilderness Preservation System to be administered in such a manner as to leave these areas unimpaired for future use and enjoyment as wilderness.
- **The Alaska National Interest Lands Conservation Act (1980)** - Directs the Secretary of Agriculture to provide adequate access to non-federal land within the boundaries of the National Forest System including congressionally designated areas.
- **Congressional Grazing Guidelines (Sec. 108, PL 96-560, H.R. Report 96-617 dated 11/14/79)** - Clarify the Congressional intent that livestock grazing will be permitted to continue in national forest wilderness areas, when such grazing was established prior to classification of an area as Wilderness. This policy is reiterated in FSM 2323.22.
- **Endangered American Wilderness Act of 1978 (PL 95-237)**: Includes the designation of Lone Peak as a wilderness area and some watershed protection requirements for that area.
- **Utah Wilderness Act of 1984 (PL 98-428)**: Includes the designation of High Uintas, Mount Naomi, Wellsville Mountains, Mount Olympus, Twin Peaks and Deseret Peak as wilderness areas and some requirements for grazing in wilderness, state water allocation authority, prohibition on buffer zones, and mineral resources.

#### Affected Environment

Lone Peak became a Wilderness in 1978 with the Endangered American Wilderness Act and the other six areas became Wilderness in 1984 with the Utah Wilderness Act of 1984.

**Table WM-1  
Wilderness by District and Acreage**

| Name                 | District                 | WCNF<br>Wilderness<br>Acres | Total<br>Wilderness<br>Acres |
|----------------------|--------------------------|-----------------------------|------------------------------|
| Twin Peaks           | Salt Lake                | 11,495                      | Same                         |
| Mount Olympus        | Salt Lake                | 15,300                      | Same                         |
| Lone Peak            | Salt Lake                | 9,747                       | 30,578                       |
| Deseret Peak         | Salt Lake                | 25,215                      | Same                         |
| Mount Naomi          | Logan                    | 44,523                      | Same                         |
| Wellsville Mountains | Logan                    | 22,986                      | Same                         |
| High Uintas          | Kamas, Evanston, Mt View | 179,813                     | 453,664                      |

The long-term goal is to maintain wilderness, where ecosystems are primarily influenced by the forces of nature, provide a diversity of opportunities for public use, enjoyment and understanding of wilderness, and preserve a high quality wilderness resource for present and future generations. The Wilderness Act of 1964 emphasizes the protection of pristine areas and recognized recreational values of public benefit. Wilderness provides outstanding opportunities for solitude and for primitive and unconfined recreational experiences. Since the Wilderness Act became law in 1964, millions of people have visited designated Wilderness for solitude, recreation, spiritual enhancement, and natural appreciation. Recreation is just one way that wilderness resources are used and valued. Wilderness is important as a sanctuary for undisturbed ecosystems, for maintenance of species diversity, protection of threatened and endangered species, as well as non-endangered plants and animals, protection of watersheds and clean water, protection of airsheds and clean air, scientific research, and various social values. Wilderness is a benchmark for determining our nations environmental and spiritual health. Local communities receive some economic benefits from wilderness designation through tourism and recreation.

The act defines the statutory definition of wilderness as:

“A Wilderness, in contrast with those areas where man and his works dominate the landscape, is hereby recognized as an area where the earth and its community of life are untrammelled by man, where man himself is a visitor who does not remain. An area of Wilderness is further defined to mean in this Act, an area of undeveloped federal land retaining its primeval character and influence, without permanent improvements of human habitation, which is protected and managed so as to preserve its natural conditions and which:

1. Generally appear to have been effected primarily by the forces of nature, with the imprint of man’s work substantially unnoticeable;
2. Has outstanding opportunities for solitude or a primitive and unconfined type of recreation;
3. Has at least 5,000 acres of land or is of sufficient size as to make practicable its preservation and use in an unimpaired condition; and
4. May also contain ecological, geological, or features of scientific, educational, or historic value.”

Wilderness designation allows uses specified in the 1964 Wilderness Act and the exceptions directed by the Utah Wilderness Act of 1984.

Wilderness acreage varies in the seven management areas on the Forest. The Eastern Uintas followed by the Stansbury and Central Wasatch management areas have the highest percentage of wilderness acreage, while the North Wasatch – Ogden Valley and Bear management areas have the no wilderness acreage.

**Table WM-2**  
**Existing Wilderness Acreage and Percentage**

| <b>Management Area</b>       | <b>Acreage of Existing Wilderness</b> | <b>Percent of Management Area designated Wilderness</b> |
|------------------------------|---------------------------------------|---------------------------------------------------------|
| Central Wasatch              | 36,542                                | 37                                                      |
| North Wasatch – Ogden Valley | 0                                     | 0                                                       |
| Stansbury                    | 25,214                                | 37                                                      |
| Cache – Box Elder            | 67,509                                | 23                                                      |
| Bear                         | 0                                     | 0                                                       |
| Western Uintas               | 42,846                                | 15                                                      |
| Eastern Uintas               | 134,966                               | 44                                                      |

Wilderness areas on the Forest include:

### ***Mount Naomi***

Located on the Logan Ranger District and part of the Cache – Box Elder management area with elevations up to 9,980 feet on Naomi Peak. Use is a collection of day visitors, backpackers and horseback riders, while the winter receives cross-country ski and snowshoe users. Key access is off the Logan Canyon Highway, along the Logan front and reaching the high country is popular from the Tony Grove Lake area. Included in the area is the Mount Naomi Peak National Recreation Trail. Use varies from low to high, depending on location and season. The area has important wildlife and ecosystem values.

### ***Wellsville Mountains***

Located on the Logan Ranger District and part of the Cache – Box Elder management area with elevations up to 9,372 feet on Box Elder Peak. Almost all of the Wellsville Mountains are part of the wilderness, but the trail system and access is limited. The area is known also for its raptor migrations. Use varies, but is generally on the lower side.

### ***High Uintas***

Located on the Kamas, Evanston and Mountain View Districts, but much of it is on the Ashley National Forest, who shares in management of the area (Wasatch-Cache has 179,813 acres of 453,664 total acres). The High Uintas is on both the Western and Eastern management areas. It is the largest wilderness area in the state with elevations up to 13,528 feet on Kings Peak, the highest mountain in the state. Terrain varies from vast lodgepole forests, to river canyons to high alpine meadow and rock country. Use varies from low to

high depending on location and season, but the area is extremely popular and well known throughout the state and nation. The High Uintas attracts a high volume of backpackers and horseback riders. Hiking is popular from access off of Mirror Lake Highway and the Forest Service North Slope road. The area is popular for visits by groups and organizations such as Boy Scouts, church groups and hiking clubs. Winter access is somewhat limited, but the winter recreation visitation is increasing. The High Uintas is known for its outstanding scenery, ecosystem and wildlife values. The High Uintas Wilderness area has a management plan for the area completed in 1997.

### ***Deseret Peak***

Located on the Salt Lake District and on the Stansbury management area in the Stansbury Mountains near the Tooele area. It is a desert mountain island in the Great Basin with elevations up to 11,031 feet on Deseret Peak. Use in the past has been low, but is now increasing because of growth in the Tooele area and crowded conditions in the Wasatch Front wilderness areas. Use is a combination of day hikers and backpackers with some horseback riding. The area is also known for its ecosystem and wildlife values.

### ***Mount Olympus, Twin Peaks, and Lone Peak***

These three wilderness areas are located on the Salt Lake Ranger District and on the Central Wasatch management area adjacent to the Salt Lake metropolitan area. Lone Peak is also located on the Uinta National Forest, that shares in its management (Wasatch-Cache has 9,747 acres of 30,578 total acres). Use is extremely high all yearlong, including the winter. Some solitude can be found in the off-trail and more rugged sections. These Wasatch front wilderness areas are somewhat unique as wilderness, in that 90 percent plus of their use is from day visitors to the area. Backpacking opportunities are somewhat limited. Horseback riding and dogs are limited to the Mill Creek side of Mount Olympus, because of important watershed values. Access is very easy with a lot of trailheads and access points from Mill Creek Canyon, Little Cottonwood Canyon, Big Cottonwood Canyon and along the Wasatch front. Elevation high points are 10,246 feet Gobblers Knob (Mount Olympus), 11,330 foot Twin Peak (Twin Peaks), and 11,326 foot Little Matterhorn Peak (Lone Peak). The area offers critical wildlife habitat, because of its adjacency to urban development. These areas are critical watershed for the Salt Lake area.

## **Biological Diversity of Wilderness**

**Air quality** – Wilderness areas on the Wasatch-Cache are rated as Class II areas. Visibility in long distance views is often a problem in the Wasatch front wilderness areas, because of their adjacency next to the Salt Lake metropolitan area.

**Water Quality** – Wilderness areas on the Wasatch-Cache are important critical watersheds for communities and wildlife needs. Most of the three Wasatch front wilderness areas are watersheds for Salt Lake City, while other wilderness areas are important watersheds for other local communities.

**Vegetation** – Much of the wilderness acreage on the Forest is higher elevation, but it can vary from around 5,000 feet to over 13,000 feet thus supporting a diversity of vegetation types including grass/forbs, brush types, conifer, aspen and alpine.

**Livestock Grazing** – There is no grazing in the three Wasatch front wilderness areas (Mount Olympus, Twin Peaks and Lone Peak). The other four wilderness areas (Mount Naomi, Wellsville Mountains, Deseret Peak, High Uintas) have some cattle and sheep allotments. Some of the allotments in the High Uintas Wilderness are vacant or closed.

**Table WA-3**  
**Grazing Allotments in Wilderness Areas**

| Wilderness           | Number of Allotments |
|----------------------|----------------------|
| High Uintas          | 19                   |
| Mount Naomi          | 3                    |
| Wellsville Mountains | 3                    |
| Deseret Peak         | 5                    |

**Wildlife and Fisheries** – The wilderness areas provide relatively undisturbed habitats for wildlife including several species at risk. Much of the area is summer range, but the lower slopes offer some critical remaining winter range. Big game includes deer, elk, and moose. Mountain Goats have been introduced. Bighorn sheep inhabit the Hole-in-Rock/Hoop Lake area near the High Uintas. Predators include coyote, bobcat, cougar, and black bear. Many non-game, small game and bird species utilize and live in wilderness areas, as well as reptiles and amphibians. Hunting and fishing opportunities, as well as wildlife watching are popular in wilderness areas. Native trout exist in wilderness. The Utah Division of Wildlife Resources has historically stocked many lakes and streams with trout. Possibly some wilderness areas could offer potential habitat for rare species including large predators.

**Fire** – Within the wilderness areas in the past, primary management action for fires has been suppression, which has led to vegetation conditions that differ from those resulting from natural processes. It is now recognized that fire benefits ecological and habitat values. Fuel buildups are high in many areas, increasing the potential of severe fires next to developed areas and creating suppression needs to protect private property and watershed values. Currently, only the High Uintas has a wildland fire use plan. The Wasatch-Cache does not have any fire plans for our portion of the Lone Peak Wilderness; prescribed burns are not allowed by the current Forest plan on the Wasatch-Cache side. The Uinta National Forest does have a wildland fire use plan on its portion of Lone Peak. The goal of wildland fire use in wilderness is to allow natural disturbances to play their natural role in the ecosystem cycles within the wilderness.

**Insects and Disease** – Snags and stands of dead trees remain from various insects and disease epidemic attacks in the past. These have included mountain pine beetles in the lodgepole stands in the High Uintas and mistletoe and outbreaks in small stands along the Wasatch Front wilderness areas. Because natural processes are allowed to function in wilderness, no management actions are underway or planned.

**Undesired Species** – Noxious weeds in wilderness areas including Dyers woad, leafy spurge, and Canada thistle is an increasing problem and starting to spread to new areas. The Mount Naomi Wilderness area especially has had noxious weed invasions. Certified weed-free feed is required in national forest to prevent additional infestations from stock feed.

## **Recreation Use in Wilderness Areas**

Recreation use in wilderness is increasing and can affect wilderness values and resources, naturalness, wildness, and solitude. Without proper management, the quality and values of wilderness are jeopardized.

A primary concern is the growing increased use of wilderness visitors impacting both popular sites, as well as pristine areas. One tool to help manage this is the use of opportunity classes based on limits of acceptable change. Currently, only the High Uintas Wilderness has approved opportunity classes. For the High Uintas Wilderness area approximately 33% of the area is Class I, 58% is Class II, and 9% is Class III. Other wilderness areas will have Class I, II, and III areas designated in this plan revision.

Wilderness visitation use is considered high on the Wasatch-Cache, except for perhaps the Deseret Peak and Wellsville Mountain areas, that have lower use. Popular trails and destinations are often crowded with demand for wilderness often exceeding supply. High use is especially occurring in areas such as:

- Near urban areas, such as the three Wasatch front wilderness areas.
- Trail corridors convenient for day hikes
- Lake basins
- Destination areas and trails to high peaks (example Kings Peak in High Uintas, Highline Trail, Mount Naomi Peak National Recreation Trail).
- Easy access areas – paved or graded gravel roads, trailheads with ample parking.

Types of recreation use vary by wilderness area, terrain, season and access. The trend is for continued increased use, especially in wilderness areas located near urban areas. Day hiking dominates the three Wasatch front wilderness areas. The highest backpacking and horse use is in the High Uintas Wilderness. Many areas receive high recreation use all year long. Much of the current management emphasis is to manage areas of heavy impact, try to confine use to these corridors and areas and to protect the more pristine wilderness values.

Commercial services can be performed within approved wilderness areas to support activities essential to realizing the recreational and other values of the area (Wilderness Act of 1964). Commercial outfitting and guiding services currently in wilderness are conducted only in the High Uintas Wilderness area with one outfitter out of the Mountain View District.

Currently, none of the wilderness areas have a required visitor use permit system or designated camp areas. There are recommended campsites in some areas. Permit systems may eventually be a part of future wilderness management.

Motorized equipment can be authorized on a case-by-case basis in wilderness, where there is a legitimate emergency involving human health and safety, such as a rescue mission for injured or lost people or for critical fire suppression needs. Other exceptions in the Utah Wilderness Act of 1984 allow access to service sanitation facilities, access to municipal water developments, and access to meteorological facilities.

There are some problems of motorized recreation trespass into the wilderness, such as snowmobiles in the High Uintas, Mount Naomi, and Wellsville Mountain areas and OHV summer season trespass in Deseret Peak area. Mountain bike use (classified as mechanical use not allowed by the 1964 Wilderness Act) is a trespass problem in some wilderness areas. Although it is an escalating problem, the trespass in wilderness from motorized and mechanical use generally is from a limited number of users.

### **Special Designations in Wilderness**

There are no designated Wild and Scenic Rivers on the Forest, but there are eligible segments of rivers in the Wild and Scenic River inventory for the Forest within wilderness. Suitability analysis for these segments is not being conducted as a part of Forest plan revision. There are no registered National Historic sites within wilderness, but there are some sites that are eligible for the National Register of Historic Places. The Mount Naomi Wilderness has the Mount Naomi Peak National Recreation Trail.

### **Future Trends**

There continues to be public interest in adding land to the National Wilderness Preservation System, either as additions to existing wilderness or as new wilderness areas. If lands are added to the system, they will satisfy both a need for preserving natural ecological conditions and for public recreation in primitive and pristine environments.

There is also opposition to adding to the wilderness system, with views that these areas are needed for access, motorized recreation needs such as snowmobiling and motorized recreation, and for future commodity outputs that benefit local community economies.

Regardless of the acreage of wilderness, use in these areas will continue to increase as a result of population growth, the desire to visit areas with pristine values, and the popularity of outdoor recreation. New technologies are continuing to be developed, that may alter the primitive recreation experience. For example cellular phones and GPS units are changing the sense of challenge, adventure, and solitude. Given the reliance on these devices and urbanization of the population, primitive skills of some visitors could diminish.

The availability of lands outside wilderness that are capable of providing high quality, primitive, wild land recreation experiences has decreased over time. If use in the most pristine portions of wilderness areas increases, these unique parts of wilderness, that offer outstanding opportunities for solitude and are virtually unaffected by use, are at risk. Low use pristine locations are highly vulnerable to being adversely impacted by even small increases in use.

Management of wilderness areas is changing. More areas are incorporating permit systems, designated sites and use restrictions. Another management tool is that of the minimum tool concept, where wilderness managers scrutinize planned actions to determine if they are necessary to protect wilderness resources or experiences. If the action is deemed necessary, then it must be accomplished with the least impact on wilderness values.

Finally, we are seeing a shift in the view of wilderness values. For a long time, wildernesses were looked at primarily as areas to meet primitive recreation needs, however they are now being recognized as critical areas for ecosystem, wildlife and watershed values, as well as for education and research.

In August of 2000, The Forest Service finalized the National Wilderness Agenda known as “Thinking Like a Mountain”. The purpose of the Wilderness Agenda is to provide a platform for communicating the values of wilderness and to focus energies on effective implementation strategies that will maintain and manage these limited resources. The Forest Service vision for wilderness areas is that wilderness is protected, nurtured, and sustained by increasingly competent and committed managers, supported by expanded scientific knowledge and growing political strength from a public that increasingly understands and appreciates wilderness.

In the Forest Service’s Wilderness Recreation Strategy, two primary problems were identified: 1) Many users are critical of use limits based on social standards alone, in high destination areas, and 2) When use limits are implemented in high use areas, visitors are displaced to the more pristine and sensitive areas that have received low use in the past. Selected courses of actions to respond to these problems included: 1) Create and/or market opportunities for high quality wildland recreation experiences outside wilderness and off National Forest lands; 2) Make it a priority to commit resources and protection to low use wilderness lands to ensure non-degradation of their outstanding opportunities for solitude and near pristine conditions; and 3) Manage high use destinations as sources of inspiration and connection with wilderness, develop and implement social standards with public input, and implement management actions to ensure that impacts to physical and biological resources are contained within standards established in the Forest plan.

## **Environmental Consequences**

### **General Effects**

Human use of designated wilderness is governed by the terms in the Wilderness Act. This limits management activities within the wilderness. Wilderness is managed to limit human impacts and influences to desired levels. Project proposals within these areas are evaluated for compliance with wilderness values. Commercial uses of wilderness are controlled by special use permits and associated operation plans. Because direction for wilderness is detailed in law, regulation, agency policy and in specific management plans, wilderness management for existing wilderness will vary little by alternative.

## Effects on wilderness from Wild and Scenic Rivers

The proposed forest plan provides standards to protect the essentially free-flowing character and outstandingly remarkable values of all eligible segments. These standards apply for the length of the segment and for .25 miles from the banks on both sides of the segment. Rivers found eligible within wilderness areas would be protected as wild rivers. Approximately 81 of the 88 miles of eligible wild and scenic river segments in wilderness are in the High Uintas Wilderness. Current wilderness areas have the following eligible wild and scenic river segments:

**Table WM-4. Wild and Scenic River Eligible Segments in Wilderness Areas**

| Wilderness Area | Wild and Scenic River Eligible Segments | Miles |
|-----------------|-----------------------------------------|-------|
| High Uintas     | Henrys Fork                             | 8.0   |
| High Uintas     | Thompson Creek                          | 3.7   |
| High Uintas     | West Fork Beaver                        | 4.6   |
| High Uintas     | East Fork Blacks Fork                   | 15.4  |
| High Uintas     | East Fork Smiths Fork                   | 11.0  |
| High Uintas     | LH & RH Fork Bear River                 | 9.4   |
| High Uintas     | Middle Fork Beaver Creek                | 6.9   |
| High Uintas     | Ostler Fork                             | 3.7   |
| High Uintas     | Stillwater Fork                         | 6.1   |
| High Uintas     | West Fork Blacks Fork                   | 8.1   |
| High Uintas     | West Fork Smiths Fork                   | 3.8   |
| Mount Naomi     | High Creek                              | 5.7   |
| Lone Peak       | Little Cottonwood (boundary)            | 1.1   |

Wild and Scenic River management is compatible with wilderness and would have no effect on wilderness.

## Effects on wilderness from vegetation and fire management

Management activities in wilderness are limited. In fact, the forces of nature (fire, insects, and disease) should be allowed to play a natural role in wilderness without intervention, as long as they do not threaten resources, public safety, and properties outside the wilderness boundary. Present conditions reflect years of fire suppression, but vary depending upon location. One of the most significant impacts to wilderness has been the suppression of fire. The exclusion of fire has produced vegetative conditions that are outside of the historical range of variability. Two vegetation management tools available inside wilderness are wildland fire use and prescribed fire. To help improve ecosystem health and meet the intent of the Wilderness Act, the proposed Forest Plan provides direction for wildland fire use within designated wilderness. This direction would apply to alternatives 1, 2, 3, 5, 6 and 7. Since Alternative 4 is the 1985 Plan as amended, use of wildland fire would not be allowed except where fire use plans are in place (High Uintas Wilderness). Prescribed fire would be allowed only to meet wilderness objectives in Alternatives 2, 3, 5, 6 and 7.

Potential direct effects of wildland fire and prescribed fire could include a temporary loss of vegetation, reduction in water quality due to sedimentation, loss of cultural resources, temporary loss of grazing opportunities, smoke pollution, and a perceived loss in scenic quality. Indirect

effects of fire use may include a temporary loss of wildlife habitat for some species, or additional habitat for others. Fires burning in wilderness could change use patterns and cause inconvenience for visitors. Wilderness users could expect temporary access restrictions during periods of fire use activities. Recreational use of burned-over areas may drop for a period of years, until vegetative recovery achieves a more advanced stage. Lethal fire in heavy timber stands could increase long-term trail maintenance needs from continued downfall of snags across trails.

Timber harvest is not permitted within wilderness areas, but logging activities near wilderness boundaries have the potential to create short-term noise level increases that change the user's perception of being in a remote area. Vegetation management activities near the wilderness boundary have the potential to affect wilderness use levels by creating potential motorized trespass entry points and increasing the potential for ecosystem effects such as noxious weed introductions. Additional access as a result of vegetation management activities may result in increased non-motorized recreation use. Alternatives 2, 3, 4, 5, 6 and 7 allow timber harvesting. It is possible some timber harvests could be located near wilderness boundaries. Mechanical treatments in oakbrush could also have some short-term effects near wilderness boundaries on the Wasatch Front.

### **Effects on wilderness from roads management**

Construction and reconstruction of roads near wilderness boundaries can potentially affect wilderness resources by increasing access. Road building activities near wilderness boundaries have the potential, in some types of terrain and vegetative cover, to increase inappropriate wilderness use by creating potential motorized entry points. In the short term, increased noise levels change the user's perception of being in a remote area. Improved access could also result in increased recreation use.

Due to Roadless Area Conservation Rule being applied in alternatives 1, 2, and 6, the potential for effects resulting from road construction would lowest in these alternatives.

### **Effects on wilderness from wildlife and fisheries management**

The Utah Division of Wildlife Resources through state game management regulations accomplishes much of the general management of wildlife including hunting seasons and fish stocking of lakes. The Forest Service manual (FSM 2641) provides that the state has the responsibility to make determinations about which wildlife and fish species are native or indigenous. The Forest Service has the responsibility to prevent damage to resources occurring on National Forest system lands. Monitoring of range conditions, management indicators and species at risk will help in meeting that responsibility.

It is recognized that fish stocking can cause human use around lakes and that stocking can interfere with historic aquatic natural processes. Holden (et al 1996) recognized that impacts to historic aquatic natural processes have occurred due to stocking fish in previously fishless waters. Historic aquatic natural processes (prior to human induced change) in currently or historically stocked waters, will be difficult, if not impossible, to fully restore. It is likely that if stocking is precluded, amphibians will migrate back into lakes, macroinvertebrate communities

are likely to recolonize, but zooplankton and other invertebrate species may not. However, zooplankton and other invertebrates can be reintroduced with human intervention.

Wilderness fishing recreation use is high in some areas causing increased use and associated impacts in popular lake basins.

### **Effects on wilderness from recreation management**

Use in existing wilderness is expected to increase regardless of alternative. Corresponding increases in recreation-associated impacts to wilderness resources can also be expected. Additional areas recommended as wilderness could redistribute some of this use. In some cases the use in relatively undisturbed areas could increase as a result of wilderness designation. Alternatives 1 and 2 have the most opportunity for additional areas to provide wilderness experiences.

Wilderness education will be emphasized in all alternatives in an effort to protect wilderness values. The emphasis of each alternative may affect the amount of budget available for the wilderness education program. In all alternatives information and education, management, and regulation enforcement are expected to protect wilderness values. Additional management could include strategies such as permit systems, group size limits, camping restrictions, and designated campsites.

### **Effects on wilderness from livestock grazing**

Grazing would continue in wilderness in accordance with Congressional guidelines and management direction in the proposed forest plan. Improvement of conditions identified as not meeting objectives varies by alternative and would affect wilderness as described in the section on effects on vegetation from livestock grazing (Topic 2). Because the Wilderness Act of 1964 permits grazing within wilderness, disposition of vacant allotments by alternative is based on other resource needs, not on wilderness considerations.

### **Effects on wilderness from mineral and energy exploration/development**

Designated wilderness is withdrawn from energy leasing and mineral entry, subject to existing rights. Private minerals within wilderness could be developed. There would be no difference between the alternatives in effects from mineral or energy exploration or development on designated wilderness areas.

### **Effects on wilderness from land ownership**

Generally landownership adjustments within designated wilderness are made in order to acquire private and state inholdings. These are usually done to protect or maintain wilderness values from the threat of development resulting in long-term benefits for wilderness resources. There would be no difference between alternatives in effects on wilderness areas.

## **Cumulative Effects**

Wilderness values and uses both increase as population and development of private lands continues. The last legislation to designate wilderness in the state of Utah was in 1984 just prior to completion of the 1985 Forest Plan. Wilderness designation is and has been an issue of high interest in the state. Large areas of potential wilderness occur on lands managed by the Bureau of Land Management in Utah. These areas have recently undergone an inventory update adding substantial acreages to wilderness study areas. However numerous attempts to reach compromise on legislation for wilderness designation have been made without success. The future of wilderness for these lands in the state of Utah is an unknown and until they are decided, national forest wildernesses are the primary contributors to the National Wilderness Preservation System for this region.

The degree to which fire can be successfully returned to fire-dependent ecosystems within and adjacent to wilderness is a major factor in the long-term benefits of these areas as sources of intact properly functioning ecosystems. This varies by wilderness area because historic fire regimes vary with vegetation cover types. Management of wildlife and fish populations and control of noxious weed invasions both within wilderness and on adjacent lands, are other important contributors to the broad functioning of wilderness ecosystems. Finally, management of livestock grazing and recreation use to maintain wilderness values will affect the long-term role that wildernesses can play in contributing to biodiversity and sustainability of the larger systems of which they are a part. These factors do not vary significantly by alternative specifically for areas designated as wilderness, therefore cumulative effects to wilderness would be similar for all alternatives.

