WILDERNESS

Abstract: Eight wildernesses have been designated on the Forest, totaling 295,572 acres (23 percent of the Forest). Of that total, 78 percent is in the alpine, spruce-fir, and spruce-fir-lodgepole pine plant series. Management emphasis will be to allow natural processes to be maintained or improved within wilderness, while identifying unacceptable impacts created by human use. Recreational use will be more intensively managed, and may result in the loss of some types of opportunities.

Alternative B recommends an additional 8,810 acres of roadless areas for designation as wilderness by Congress, and Alternative H recommends 259,363 acres. Areas recommended for designation in this *FEIS* and Record of Decision will be managed to maintain their wilderness attributes until Congress adds them to the Wilderness Preservation System, or they are released to multiple-use management. Note that the Roadless Area section shows 8,551 acres recommended for designation in Alternative B. This is due to different computer analyses used for the roadless areas and Forest management area allocations.

Wilderness management is not a revision topic in itself, but wilderness areas are important to other revision topic including retention of biological diversity, recreation, roadless areas, timber, and travel management.

LEGAL FRAMEWORK

The 1964 Wilderness Act defines a wilderness as an area:

1. ... where the earth and its community of life are untrammeled by man, where man himself is a visitor who does not remain.

2. ... that retains its primeval character and influence, without permanent improvements or human habitation...

3. (that) generally appears to have been affected primarily by the forces of nature, with the imprint of man's work substantially unnoticeable...

4. (that) has outstanding opportunities for solitude or a primitive unconfined type of recreation...

The Rocky Mountain Region provides additional direction in its "Wilderness Management Philosophy" (September, 1989). Management will consider that:

1. "The wilderness experience" is an important value. Nature appreciation, freedom, solitude, and simplicity are part of that experience, as well as aesthetic, spiritual, and mystical dimensions.

2. Mental and spiritual restoration is provided by wilderness.

3. Wilderness provides a yardstick for measuring changes in the developed world.

4. Wilderness-dependent uses (for example, long distance trekking with outstanding opportunities for solitude) will be favored over other uses.

5. Users will actually face some perils and assume responsibility for their actions (for example, getting lost or crossing swollen streams). A wilderness users ethic must be provided by the Forest Service for visitors.

6. Wilderness is a unique resource that can be preserved only by deliberate management to minimize man's influence.

Varied interpretations of these definitions and directions have led to controversy regarding the management of designated wilderness areas. Some members of the public believe management should be biocentric, emphasizing the natural processes and ecosystems in the wilderness. Others embrace an anthropocentric philosophy, providing for public use and enjoyment of the areas, sometimes at the expense of the natural environment. Wilderness areas on the Forests differ in their naturalness, with some places wild and not easily accessible. Others, such as the Indian Peaks Wilderness west of Boulder, have trails where several hundred visitors will be encountered on a summer afternoon. These seemingly contradictory settings provide challenges for resource and visitor management. On the ARNF, management will focus on maintaining or restoring ecological integrity while providing acceptable levels of use.

AFFECTED ENVIRONMENT

The eight wilderness areas on the Forests were designated by Congress in 1978, 1980, and 1993. Approximately 295,572 acres, or 23 percent of the Forests, are part of the National Wilderness Preservation System, as shown in the third column below. The other columns show acres administered by other adjacent Forests and the total acres in each wilderness.

The majority of the wilderness areas (88 percent) are at higher elevations, encompassing much of the alpine tundra and subalpine areas on the ARNF. Approximately 77,000 acres are in the alpine tundra plant series, 131,400 acres are spruce-fir, and 60,900 acres are spruce-fir-lodgepole pine. Lower elevation areas in lodgepole pine, ponderosa pine, and other vegetation types make up the other 12 percent. Only one wilderness, the Cache la Poudre, is located at the relatively low altitude of 6,200 to 8,600 feet.

Figure 3.24

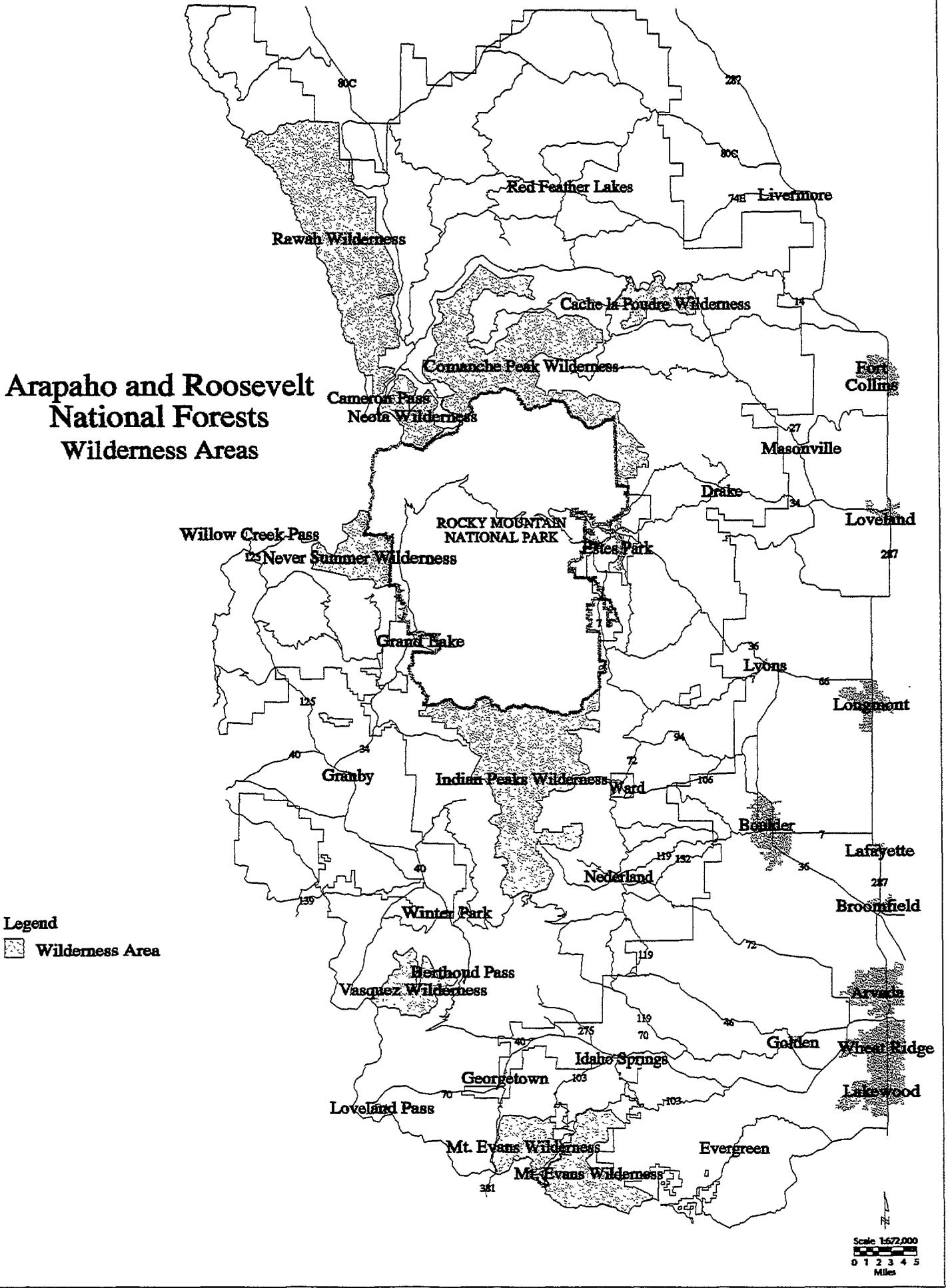
Arapaho and Roosevelt National Forests
Wilderness Areas
Legend
Wilderness Area
Red Feather Lakes
Livermore
Rawah Wilderness
Cache la Poudre Wilderness
Comanche Peak Wilderness
Fort Collins
Cameron Pass
Neota Wilderness
Masonville
Drake
ROCKY MOUNTAIN NATIONAL PARK
Loveland
Willow Creek Pass
Never Summer Wilderness
Estes Park
Grand Lake
Lyons
Longmont
Granby
Indian Peaks Wilderness
Ward
Boulder
Lafayette
Nederland
Broomfield
Winter Park
Berthoud Pass
Vasquez Wilderness
Arvada
Golden
Wheat Ridge
Idaho Springs
Georgetown
Lakewood
Loveland Pass
Mt. Evans Wilderness
Evergreen
Mt. Evans Wilderness
Scale 1:672,000
0 1 2 3 4 5
Miles

Table 3.129 Wildernesses Administered by the Arapaho and Roosevelt National Forests

Area	Year Established	Acres Within the ARNF	Acres Administered by Other Forests	Total Acres in ARNF and other NFs
Cache la Poudre	1980	9,436	0	9,436
Comanche Peak	1980	67,804	0	67,804
Indian Peaks	1978	70,782	0	70,782
Mount Evans	1980	38,649	34,127	72,776
Neota	1980	9,663	267	9,930
Never Summer	1980	14,257	6,659	20,916
Rawah	1978	72,331	1,462	73,793
Vasquez	1993	12,650	9	12,659
TOTAL		295,572	42,515	338,087

The cumulative use for the eight wildernesses from 1984 to 1996 is shown below, as described by Recreation Visitor Days.

Table 3.130 Cumulative Wilderness Use, ARNF, 1984 - 1996

Year	ARNF Wilderness Use (Thousands of RVDs)
1984	130.8
1985	143.8
1986	132.0
1987	143.7
1988	142.4
1989	146.4
1990	163.0
1991	172.3
1992	155.4
1993	145 0
1994	110.7
1995	110 7
1996	97.8

Use in the Forest wildernesses seems close to be decreasing. The decrease may be related to spring weather delaying high country access, closures such as the reconstruction of Mountain Park Campground that closed the primary access to the Cache la Poudre Wilderness, or, more likely, more reliable methods of estimating use. Use in 1996 for each wilderness is shown in Table 3.131.

Table 3.131 Wilderness Use by Area, ARNF, 1996

Wilderness	Recreation Visitor Days
Cache la Poudre	985
Comanche Peak	12,200
Indian Peaks	40,800
Mount Evans	33,500
Neota	350
Never Summer	4,400
Rawah	5,000
Vasquez	550
TOTAL	97,785

Most of the use in wilderness areas is hiking and backpacking, with some fishing, hunting, and horseback riding. The demand for day use is very high in some areas, notably Mount Evans.

Current policy is to manage visitor activities to minimize resource alteration. Some areas, like the Indian Peaks, Mt. Evans, and Comanche Peak, receive heavy use. Much of the use is concentrated along trail corridors and around lakes, which can create areas impacted by erosion, resulting in the loss of vegetation and soil. Concentrated use also contributes to a loss of solitude. Unrestricted campfires result in fire rings, visible ashes, and damaged vegetation used for fuel. Area-specific orders are used to manage resource impacts in high-use locations. In contrast, other areas receive few visitors, with the evidence of use limited to paths along streams and around lakes.

The existing trails in all wilderness areas are shown in Table 3.132.

The 1984 *Forest Plan* provided for pristine, primitive, semiprimitive, and transitional zone wilderness management areas. The specific wilderness area managements are described in the Wilderness Implementation Schedule (WIS) for each wilderness. The revised *Forest Plan* specifies management of wildernesses with one management area, MA 1.1, containing the four zones as opportunity classes. Each WIS will be updated as needed to comply with the standards and guidelines, and other direction provided in the *Forest Plan.*

Table 3.132 Trail Miles in Forest Wilderness Areas, ARNF, 1995

Wilderness Area	Miles
Cache la Poudre	1.5
Comanche Peak	90.3
Indian Peaks	99.7
Mount Evans	43.6
Neota	1.2
Never Summer	24.3
Rawah	70.6
Vasquez	10.9
TOTAL	342.1

The *Forest Plan* also evaluated 330,230 acres in 38 roadless areas for possible recommendations for wilderness designation by Congress. These areas were examined for their wilderness attributes as described in the Wilderness Act of 1964. The Roadless Area section and Appendix C contain a detailed explanation of the process used for the determination and a summary of results for each area.

Future Trends

Table 3.133 illustrates past and projected future use compared to trail and area capacities. The trail capacity is considered more applicable than the area capacity because the majority of use occurs in trail corridors and around lakes. All wildernesses may exceed their trail capacity in the next ten years except for the Vasquez and Never Summer areas. Additional trails are needed to provide the projected opportunities needed, or permit systems are needed for day and overnight activities to limit use. In the table use estimates by decade are based on projections from all use other than 1996, which showed anomalous values (see footnote b to the table). The Forests are in need of a uniform, systematic method for estimating wilderness use.

Table 3.133 A Summary of Comparison Between Wilderness Use and Capacity, ARNF, 1984-2045

Year	Use by Wilderness Area[a]								Use Totals
	Cache la Poudre	Comanche Peak	Indian Peaks	Mount Evans	Neota	Never Summer	Rawah	Vasquez	
1984	0.5	28.4	53.4	22.4	4.6	9.0	12.5	N/A	**130.8**
1993	3.8	41.1	40.4	35.0	0.5	3.1	21.5	Unknown	**145.4**
1995	4.5	43.7	40.4	37.8	0.5	3.1	23.5	Unknown	**153.5**
1996[b]	1.0	12.2	40.8	33.5	0.4	4.4	5.0	.6	**97.8**
2000	6.3	50.7	40.4	44.8	0.5	3.1	28.5	Unknown	**174.3**
2005	8.1	57.7	40.4	51.8	0.5	3.1	33.5	Unknown	**195.1**
2015	11.7	71.7	40.4	65.8	0.5	3.1	43.5	Unknown	**236.7**
2025	15.3	85.7	40.4	79.8	0.5	3.1	53.5	Unknown	**278.3**
2035	17.1	99.7	40.4	93.8	0.5	3.1	63.5	Unknown	**318.1**
2045	20.7	113.7	40.4	107.8	0.5	3.1	73.5	Unknown	**359.7**
	Capacity by Wilderness Area[a]								Acre Capacity Totals
Acres	9,436	67,804	70,782	38,649	9,663	14,259	72,331	12,650	**295,574**
Low Capac.	1.9	13.6	14.2	7.7	1.9	2.9	14.5	2.5	**59.1**
High Capac.	23.6	169.5	177.0	96.6	24.2	35.3	180.8	31.6	**736.4**
	Capacity for Wilderness Area Trails[a]								Trail Capacity Totals
Miles	1.5	90.3	99.7	43.6	1.2	24.3	70.6	10.9	**342.1**
Low Capac.	0.2	9.0	10.0	4.4	0.1	2.4	7.1	1.1	**34.2**
High Capac.	0.5	27.1	29.9	13.1	0.4	7.3	21.2	3.3	**102.6**

[a] All use and capacity values are expressed in 1,000s of recreation visitor days.

[b] The wide variation in use counts between 1996 and previous years may be due to methods of counting, use estimations, presence or not of wilderness rangers or changes in weather conditions that affect use.

Future use is expected to increase in wilderness areas close to the Front Range corridor, and to remain stable or increase slightly in remote areas. The projected population increase of a half million people on the Colorado Front Range by the year 2010, and the probable increase in nonresident visitors indicate wilderness use will increase. The Indian Peaks receives the highest use, with Rawah, Mount Evans, and Comanche Peak heavily used in some areas. Additional future use is expected to have additional impacts on wilderness resources, with more intensive visitor and resource management needed. Additional trail construction, designated camp sites, and permitting for overnight or day use are possible tools for management.

ENVIRONMENTAL CONSEQUENCES

EFFECTS COMMON TO ALL ALTERNATIVES

Management within the wildernesses is not a Revision Topic or item. However, the Forests will examine an updated allocation of the pristine, primitive, semiprimitive, and transitional opportunity classes, based on present resource conditions and predicted use. The direction discussed in Management Area 1.1 will be implemented in future Wilderness Implementation Schedules.

A Limits of Acceptable Change program will be implemented as funding allows. The program will emphasize maintaining or improving biodiversity while providing satisfactory recreation opportunities. Areas requiring restoration activities will be identified.

EFFECTS ON WILDERNESS FROM ECOSYSTEM MANAGEMENT

The objective of wilderness management is to manage physical and biological attributes to allow natural processes to perpetuate the included ecosystems. One of the primary ecological processes considered is disturbance by fire. Years of fire suppression have altered the naturalness of wilderness and have placed the intrinsic values of these areas at risk. Lighting-ignighted wildland fires can be managed as an ecological process under a prescription control strategy (see the Fire section.) Prescribed fires will require complete project analysis before ignition.

Direct effects of fire would be a temporary loss of vegetation, possible reduction in water quality due to sedimentation, possible reduced soil productivity, air pollution, and a perceived loss in scenic quality. However, more natural processes and biodiversity would be restored over time.

Indirect effects may include a temporary loss of wildlife habitat effectiveness for some species, or additional habitat for others. Wilderness users can expect restrictions in areas available for camping with group size or campfire prohibitions in some areas. The perceived experience may be reduced.

Control of insect and disease outbreaks in wilderness may be justified by the predicted loss of resource values outside of wilderness.

EFFECTS ON WILDERNESS FROM RECREATION MANAGEMENT

The actions discussed in management area 1.1 direction may decrease some recreation opportunities (for example, the use of campfires in the wilderness) to minimize the impacts of increased use on the wilderness resource, biodiversity, natural ecosystems, and perceived wilderness experiences. The Limits of Acceptable Change program and associated strategies to manage identified impacts will be used to determine needed actions. Trail capacity analyses demonstrate the need for permit systems for day use and additional overnight use and the need for additional trail opportunities to minimize human impacts on wilderness. Designated campsites around some popular lakes are needed to minimize impacts. Some members of the public will disagree with the proposed actions.

All alternatives would construct 20 miles of additional routes as part of the Continental Divide National Recreation Trail; this construction would be independent of budget levels. This trail travels through the Never Summer, Indian Peaks, and Vasquez Wildernesses. Construction would disturb approximately .48 acres per mile (based on a four-foot width of disturbance), or a total of 9.6 acres. The additional trail capacity provided would be 6,000 RVDs, far short of the opportunities needed in the future, as shown in Table 3.133.

Reconstruction of approximately 237 miles of trails is planned for Alternatives B and E, with 95 miles planned in Alternative H, and three miles in Alternative I. The reconstruction would slightly reduce impacts to soil and water quality. These activities can be accomplished at the experienced budget level by using volunteers and cooperative agreements.

Wilderness education will be emphasized to protect wilderness values, including signing at trailheads, public programs, and brochures. Full implementation budget levels are needed to accomplish these programs satisfactorily. As use increases and issues emerge, additional law enforcement activities will be needed.

EFFECTS ON WILDERNESS FROM ADDITIONAL WILDERNESS RECOMMENDATIONS

The revised *Forest Plan* evaluated 330,230 acres in 38 roadless areas for possible recommendation to Congress for designation to the Wilderness Preservation System. The wilderness attributes were evaluated using criteria stated in the Wilderness Act of 1964. If the areas were capable of meeting those criteria, the effect of designation on wilderness attributes and nonwilderness uses was examined, and a recommendation regarding designation was made. This *FEIS* and the Record of Decision reflect these determinations. The section on Roadless Areas and Appendix C explain the process in detail, and provide summaries of the determinations for each area.

Alternative B recommends 8,810 acres for designation by Congress, and Alternative H recommends 259,363 acres. Note that the Roadless Area section states that Alternative B recommends 8,551 acres. The difference is due to the different computer analyses used for the roadless areas and the overall management areas. Other alternatives did not recommend any areas for designation. The areas recommended to Congress in the Record of Decision would be

managed to maintain their wilderness attributes and values until Congress designates them as wilderness, or they are released to multiple-use management.

The effects of designation relate to: (1) additional areas to meet future projected demands for unconfined primitive recreation with outstanding opportunities for solitude, and (2) additional areas where natural processes are allowed to proceed with minimal impacts from human use and biodiversity and ecosystem management is emphasized. If Congress designated the areas recommended in Alternative B, a total of 304,383 acres of the Forests (24 percent) would be Wilderness. In Alternative H, a total of 555,936 acres (43 percent) of the Forests would be designated.

Needed Modifications in Existing Wilderness Area Boundaries

When the Comanche Peak Wilderness was designated in 1980, two developments, the Zimmerman Trailhead and a powerline in Jack's Gulch were within the designated boundary. When Congress considers additional wilderness designations, these two areas could be recommended for boundary modifications. The decrease in the wilderness will total 2.3 acres to exclude the trailhead, and approximately 80 acres to exclude the powerline and adjacent areas. Moving the facilities out of the wilderness may also be considered. The locations are shown in Figure 3.24.

Cumulative Effects

The cumulative effects of the above actions would be to allow natural processes to be maintained or improved within wilderness, while identifying unacceptable impacts created by human use. Recreational use will be more intensively managed, and may result in the loss of some types of opportunities.

The total trails in wilderness would be the existing 342 miles (164 acres), with an additional 20 miles constructed and 10 acres of disturbance due to the Continental Divide National Recreation Trail. Designated recreation sites and other actions intended to minimize impacts, restore disturbed areas, and maintain or restore ecosystems and natural processes, would be implemented where needed, as funding and resources are available. Measures will be taken to provide a satisfactory wilderness experience for users. These actions will be determined by Limits of Acceptable Change program based on monitoring and evaluating use patterns, their impacts, and effects on natural ecosystems. The implementation of these activities should occur at the experienced budget level, with additional interpretation and on-the-ground management possible at the full implementation level.