

Chapter 5 – Complexes: Area-Specific Management Recommendations

This section contains our detailed, area-specific proposal utilizing the theme based approach to land management. As an organizational tool, this proposal divides the Pike-San Isabel National Forest into eleven separate **Complexes**, based on geo-physical characteristics of the land such as mountain ranges, parklands, or canyon systems. Each complex narrative provides details and justifications for our management recommendations for specific areas. In order to emphasize the larger landscape and connectivity of these lands with the ecoregion, commentary on relationships to adjacent non-Forest lands are also included.

Evaluations of ecological value across public and private lands are used throughout this chapter. The Colorado Natural Heritage Programs rates the biodiversity of Potential Conservation Areas (PCAs) as General Biodiversity, Moderate, High, Very High, and Outranking Significance. The Nature Conservancy assesses the conservation value of its Conservation Blueprint areas as Low, Moderately Low, Moderate, Moderately High and High. The Southern Rockies Ecosystem Project's Wildlands Network Vision recommends land use designations of Core Wilderness, Core Agency, Low and Moderate Compatible Use, and Wildlife Linkages. Detailed explanations are available from the respective organizations.

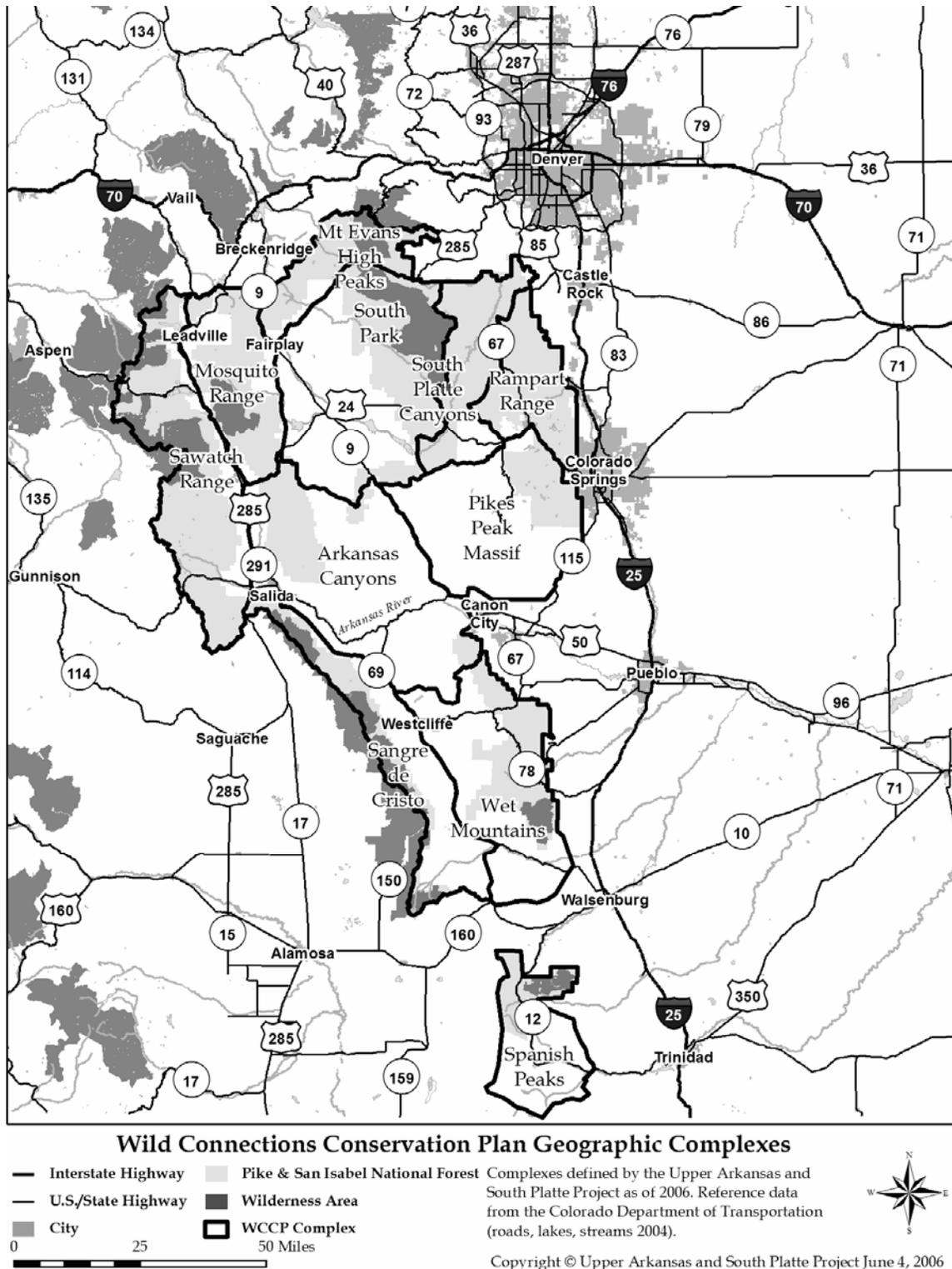
Complexes – Summary List by Watershed

Table 5.1: Summary of WCCP Complexes

Watershed	Complex	Ranger District
South Platte	Mount Evans High Peaks	South Platte & South Park
	South Park	South Platte & South Park
	South Platte Canyons	South Platte & South Park
South Platte and Arkansas	Mosquito Range	South Park, Leadville and Salida
	Pikes Peak Massif	Pikes Peak
	Rampart Range	South Platte & Pikes Peak
Arkansas	Sawatch	Leadville and Salida
	Arkansas Canyons	Salida, San Carlos & BLM Royal Gorge Resource Area
	Sangre de Cristo	Salida and San Carlos
	Wet Mountains	San Carlos
	Spanish Peaks	San Carlos

Complexes – Map Locater

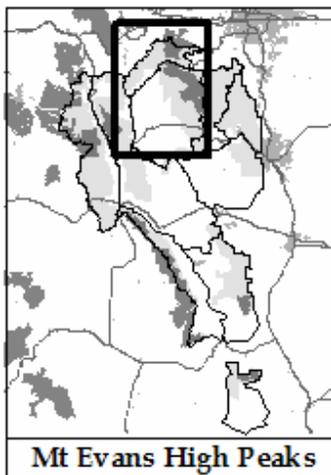
Map 5.1: Wild Connections Complexes



The Mount Evans High Peaks Complex

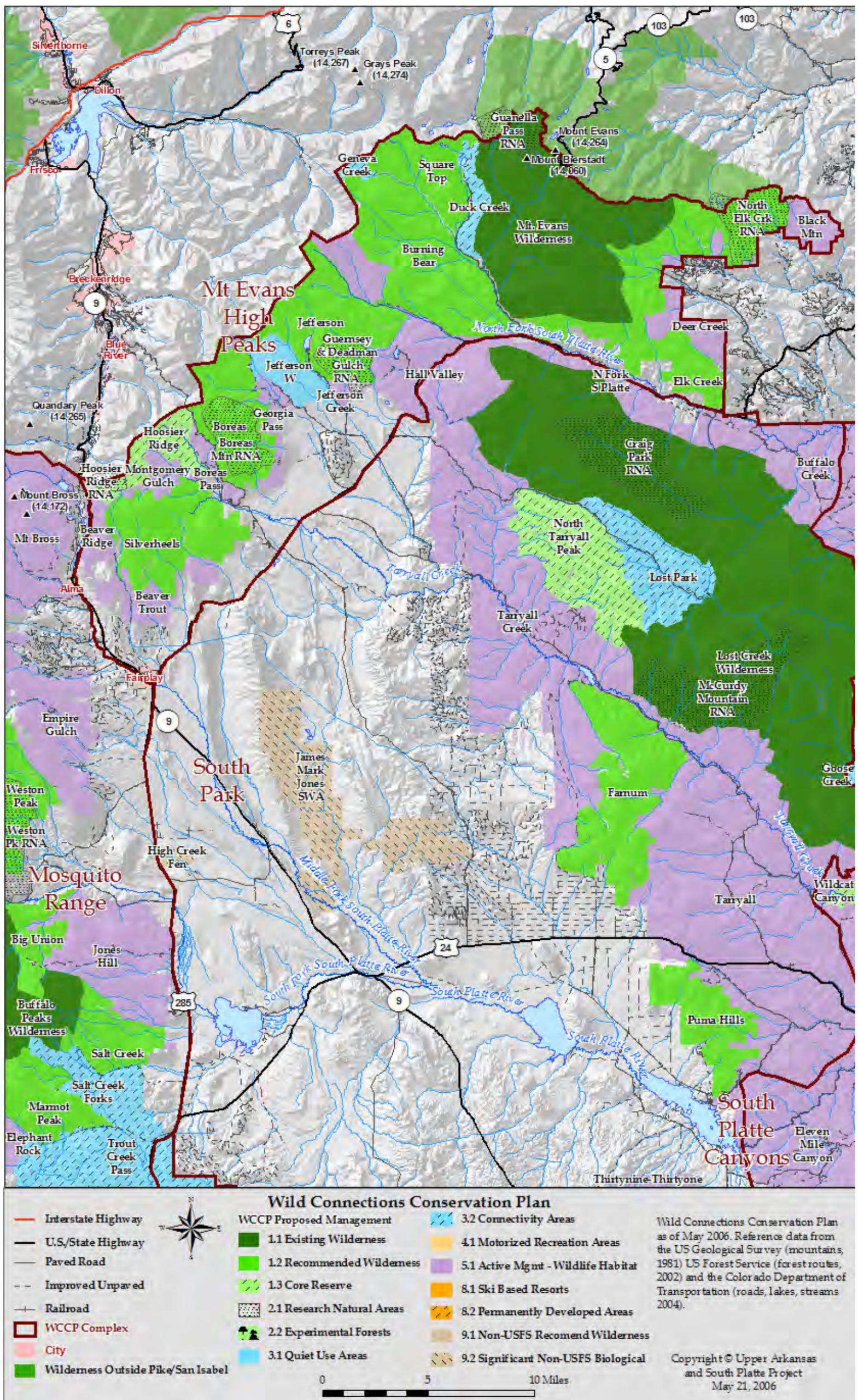


Square Top roadless area



The Mount Evans High Peaks Complex lies along the Continental Divide at the northern edge of South Park between the foothills east of Mount Evans to Hoosier Pass.

Eleven complexes centered on geographical features encompass sections of the Pike-San Isabel National Forest, adjacent BLM, state, and private lands. Fitting together like a mosaic, they cover the headwaters of the South Platte and Arkansas Rivers.



Map 5.4: Mount Evans High Peaks Complex Proposed Management

Note: This map is located in the pocket at back of the document for usability.

Description

Overview

The Mount Evans High Peaks complex lies along the Continental Divide in the northern Pike National Forest from Mount Evans on the east to Hoosier Pass on the west. It rims the northern edge of South Park and is primarily in Park County with a small section in Clear Creek County. Most of the complex can be seen to the north from Highway 285, and Mount Evans is clearly visible from many vantage points, including Denver.

A description of the landscape, vegetation, wildlife, and ecological values, including detailed descriptions of roadless areas, is followed by the recommendations for the complex organized according to the management themes. A discussion of connectivity within the complex and to adjacent complexes is found at the end.

The landscape and wildlife

The mountain range in the Mount Evans High Peaks complex is broken into a series of peaks with intervening passes and valleys. Peaks include Mount Evans, Mount Bierstadt, Epaulet Mountain, Mount Spaulding, Kataka Mountain, Mount Logan, Square Top Mountain, Landslide Peak, Red Cone, Handcart Peak, Whale Peak, Glacier Peak, Mount Guyot, Boreas Mountain, and Red Peak, to name just a few. Overall elevation ranges from 14,264 at Mount Evans to 13,000 feet along the crest of the Continental Divide, and 9,000 feet in the lower edges of the forest. The complex contains the headwaters and tributaries of the North and Middle Forks of the South Platte River in Hall Valley and the Wheeler Mountain area respectively. Other significant streams include, east to west, Elk Creek, Deer Creek, Scott Gomer Creek, Geneva Creek, Jefferson Creek, Michigan Creek, Tarryall Creek, Trout Creek, and Beaver Creek. Duck Lake, near Guanella Pass, and Jefferson Lake, a water supply reservoir, are relatively large bodies of water.

The predominant vegetation in Mount Evans High Peaks is alpine tundra, Engelmann spruce-subalpine fir, and lodgepole pine. There are stands of Douglas-fir and ponderosa pine in the lower elevations on the southeastern side. Engelmann-spruce/subalpine fir and bristlecone forests in the complex have areas of old growth and mature forests moving toward old growth characteristics. Aspen, bristlecone pine, willows, and other wetland species are scattered across the complex, and open areas contain montane grasslands with many wildflowers.

There is habitat for a large variety of species, including lynx, mountain lion, bobcat, black bear, mule deer, elk, bighorn sheep, pine marten, a variety of raptors, and smaller mammals such as ground squirrels and snowshoe hares, and the introduced mountain goats. Mule deer, elk, and bighorn sheep have winter range particularly on the southern edges. In addition to lynx occurrences, overall and denning habitat, the Mount Evans High Peaks complex includes the Guanella Pass, Kenosha Pass, and Boreas Pass lynx linkages. Rare species include boreal toad (*Bufo boreas*), greenback cutthroat trout (*Oncorhynchus clarki stomias*), wolverine (*Gulo gulo*), and numerous plant species and plant communities.

Ecological values of the complex

In addition to providing all the typical montane and alpine vegetation types to support a wide range of species, Mount Evans High Peaks includes many rich and unique biological areas. Research Natural

Areas (RNA) include the existing Hoosier Ridge RNA and four proposed RNAs. The Colorado Natural Heritage Program lists more than a dozen Potential Conservation Areas (PCAs) ranging in significance from moderate to outstanding. The Nature Conservancy’s Southern Rocky Mountains Conservation blueprint (TNC blueprint) includes most of the complex in its moderately low and moderate conservation priorities, with moderately high priority areas across Boreas, Hoosier Ridge, and Silverheels roadless areas. The Southern Rockies Ecosystem Project’s Wildlands Network Vision (SREP Vision) includes all the roadless areas as core wilderness, with the remainder of the complex as moderate or low compatible use. Clearly various conservation approaches value the Mount Evans High Peaks complex highly for its biological richness.

Wilderness and Roadless Areas

The large proportion of roadless land in the Mount Evans High Peaks results in a good distribution of high quality ecological characteristics. (See Table 5.6). The areas are described below.

Table 5.6: Mount Evans High Peaks Roadless Areas

Name	Acres (UASPP)	Roadless Under Roadless Rule
Boreas	11,400	Yes*
Burning Bear	20,700	Yes
Elk Creek	22,300	Yes*
Hoosier Ridge	5,000	No
Jefferson	19,900	Yes*
Mount Evans Wilderness	74,400	n/a**
Silverheels	14,000	Yes*
Square Top	8,700	Yes

Wilderness Areas

Mount Evans Wilderness

Mount Evans Wilderness, some 74,400 acres, is administered by both the Pike and Arapaho National Forests. Approximately 35,000 acres is in the Pike National Forest, located between the eastern foothills and Guanella Pass road, Highway

285, and the Continental Divide. The Continental Divide anchors the eastern end of the complex, and includes a range of elevations from around 9,300 feet up to Mount Evans and Mount Bierstadt, the two Fourteeners in the middle of the Wilderness. As with most Colorado Wildernesses, Mount Evans is predominantly alpine tundra and bare rock, but there are significant spruce-fir and lodgepole pine forests, many wetlands and montane meadows, and excellent habitat for elk, bighorn sheep, and lynx, among other notable animals. There is a high human presence on the Mount Evans summit road (mostly located in the Arapaho Forest) during the summer, but this is generally limited to the immediate road corridor and several nearby trails. Trailheads are high use areas, and the trail to Mount Bierstadt has many climbers on summer days. There is a trail network of some 105 miles in the immediate area, including 77 miles within the Wilderness boundary.

**Roadless rule area has significantly fewer areas than UASPP inventory.*

***Includes land in an adjacent National Forest.*

Lynx have been recently documented in the Wilderness area by the Colorado Division of Wildlife. The Guanella Pass lynx linkage provides north-south connections to the adjacent Arapaho and White River Forests, while the Kenosha Pass lynx linkage at the south end of the Wilderness provides connections to Lost Creek Wilderness. Expert workshops conducted by Southern Rockies Ecosystem Project identified Mount Evans and Lost Creek Wildernesses as areas with secondary gray wolf habitat, which may be of some importance as wolves disperse from the Yellowstone area. Mountain lions are found here in appropriate habitat. Virtually the whole Wilderness is bighorn sheep range, with two large winter range areas on the west side, a winter concentration area near Highway 285, and lambing areas scattered across the west side. Elk move across the whole Wilderness in summer and to lower elevations in winter, and there are scattered calving areas in the interior. Mule deer summer across the Wilderness and have winter

range and concentration areas on the south side. Mountain goats, which were introduced as a game animal and are favorites with tourists on the Mount Evans road, are found in the higher elevations. White-tailed ptarmigan are of note, especially in the Guanella Pass area, where they can be found in summer or winter with some diligent searching. Down in the forest to the south, greenback cutthroat trout (*Oncorhynchus clarki stomias*) are recorded in the Francis Creek area, along with hoary or silver willow, Nangoon berry (*Cylactis arctica* spp. *acaulis*), two rare sedges (*Carex scirpoidea* and *C. oreocharis*, Porter feathergrass (*Ptilagrostis porteri*) and bristlecone pine/Arizona fescue (*Pinus aristata*/*Festuca arizonica*) montane woodlands community

Guanella Pass proposed RNA is located in the Wilderness in the basin between Guanella Pass road and Mount Bierstadt, Mount Spaulding, and Gray Wolf Mountain. It would “preserve the area as an outstanding example of upper subalpine willow and fen wetlands and alpine tundra communities in excellent condition.” (Karin Decker, Colorado Natural Areas Program, March 1998) . A Potential Conservation Area of high significance is located from Guanella Pass to south of Geneva Mountain. The TNC blueprint also shows parts of Mount Evans Wilderness as moderate significance, with the southeast corner of the Wilderness as high conservation significance.

Unprotected roadless areas

There are seven unprotected large roadless areas in the Mount Evans High Peaks complex. All except Hoosier Ridge were inventoried as roadless under the Forest Service’s Roadless Area Conservation Rule, but UASPP field inventories determined that four areas were larger than the Roadless Conservation Rule boundaries. In addition to their value as roadless areas, five also include areas recommended as RNAs. The Square Top roadless area is contiguous to the Square Top North proposed Wilderness in the Arapahoe National Forest. These areas are described from east to west below.

Elk Creek

The Elk Creek roadless area is contiguous with the Mount Evans Wilderness on the north and west, is bounded by the Harris Park community and some adjacent forest roads on the east, and is bounded by US Highway 285 on the south. The extent of the roadless area as inventoried by UASPP at 22,300 acres is considerably larger than that shown in the Roadless Area Conservation Rule Inventory.

Elk Creek is predominantly Engelmann spruce-subalpine fir and lodgepole pine, with ponderosa pine and Douglas-fir near Harris Park and along US Highway 285. Slender cotton grass (*Eriophorum gracile*), a rare plant, is found in the northeast portion. Black bear and mountain lion might be sighted in any part of the area. Bighorn sheep, elk, and mule deer have winter range here, with mule deer winter concentrations along US Highway 285 and three elk calving areas in or adjacent to the unit. There is lynx habitat across most of the area with denning habitat on the northeast side.

The Harris Park fuels treatment project, recently approved, would potentially alter parts of the roadless area and impact the wilderness qualities of Elk Creek.

The proposed North Elk Creek RNA eastern end of the roadless area is rated of high biological value by Center for Native Ecosystems. It includes the rare slender cotton grass (*Eriophorum gracile*). The Mud Lakes PCA of general biodiversity interest overlaps the roadless area in the headwaters area of North Elk Creek. SREP’s Vision shows the Elk Creek roadless area as core wilderness.

Square Top

The 8,700-acre Square Top roadless area is immediately north of the Burning Bear roadless area and west of Mount Evans Wilderness. It is bounded on the east by the Guanella Pass road, on the north and west by the Continental Divide and the Pike-Arapaho Forest boundary, and on the south by the Geneva Creek road. Its northern boundary at the Continental Divide is rather artificial, as the actual roadless area goes well over into the Arapaho National Forest. This additional area, known as Square Top North, was proposed for Wilderness designation by conservationists for the Arapaho-Roosevelt forest plan revision. All of Square Top was identified as roadless under the Roadless Area Conservation Rule inventory.

Because of its high elevations, a large portion of the area is alpine tundra or rock, with Engelmann spruce-subalpine fir and lodgepole pine, and some pockets of aspen, in the forested areas. There are many significant wetlands, especially near Guanella Pass and in the Geneva Basin area. Plant communities such as barren-ground willow/mesic forb (*Salix brachycara/mesic forb*) alpine willow scrub are important here. Rare plants such as Porter feathergrass (*Ptilagrostis porteri*), Nagoon berry (*Cylactis arciap spp.*), Rocky Mountain columbine (*Aquilegia saximontana*), and Weber monkey-flower (*Mimulus gemmiparus*) have been found here. Unique iron fens are located in Geneva Basin at the historical Geneva town site.

Black bear can be sighted in forested parts of the area. Bighorn sheep, mule deer, and elk have summer range in appropriate habitat, and mountain goats are found in the higher elevations. Lynx habitat is located on the south in the forested areas, including habitat suitable for denning, and radio-collared lynx have been documented in the Guanella Pass area. The Guanella Pass lynx linkage provides north-south connections to the adjacent Arapaho National Forest. Boreal toads (*Bufo boreas*) are present in the Geneva Creek area, and the reconstruction of the Guanella Pass road includes structural crossings for the toads.

Part of the CNHP's Geneva Park PCA of high significance is found on the southeast corner of the area. The Guanella Pass potential conservation area of moderately high significance is located on the northeast corner and overlaps the Square Top North area. In addition small parts of Argentine Peak and Collier Mountain PCAs are here. The TNC conservation blueprint shows most of Square Top as having moderate to moderately low conservation value and the SREP Wildlands Vision shows it as a core wilderness.

Burning Bear

The Burning Bear roadless area is located immediately west of Mount Evans Wilderness. It is bounded by Highway 285 on the south, the North Fork of the South Platte on the west and south, and the Geneva Creek road on the north. Only the Guanella Pass road, now under major reconstruction, separates it from Mount Evans Wilderness on the east. The whole area of some 20,700 acres was deemed roadless under the Roadless Area Conservation Rule inventory.

Habitat is predominantly lodgepole pine in the south, Engelmann spruce-subalpine fir in the higher forested elevations, and alpine tundra and rock in the north near the Continental Divide, with some areas of limber pine, ponderosa pine, and aspen. There are significant wetlands, especially in Geneva Basin where Burning Bear Creek, Buno Creek, and Geneva Creek join. CNHP lists several significant plant communities and rare plants: two sedges, five draba species, Porter feathergrass (*Ptilagrostis porterii*) Nagoon berry (*Cylactis arciap spp.*), and tundra buttercup, as well as listing greenback cutthroat trout (*Oncorhynchus clarki stomias*) and boreal toad (*Bufo boreas*) in the Geneva Creek area.

Black bear are found throughout the area. Elk are also found across the area, with elk winter range on the southern end. There are two large elk calving areas in the north and south central parts, as well as a large migration corridor from the south end of Burning Bear into South Park, where there is a high incidence of animals crossing Highway 285. Mule deer also range across the area in the summer and concentrate along Highway 285 in the winter. There is a small bighorn sheep lambing area near Burning Bear Creek, although the main bighorn sheep concentrations are in the adjacent Mount Evans Wilderness. Mountain goats may be found in the higher elevations in summer. Lynx habitat is found across the forested part of the roadless area with denning habitat scattered throughout, and radio collared lynx have been located in the Guanella Pass area.

Colorado Natural Heritage Program's Geneva Park PCA is rated of very high significance. The west side of Burning Bear intersects the Sullivan Mountain and part of Jefferson Hill PCAs, rated of high and very high significance, near the North Fork of the South Platte River. The TNC rates all of Burning Bear as moderate conservation value and the SREP Vision shows it as a core wilderness.

Jefferson

Lying east of the Continental Divide between the North Fork of the South Platte in Hall Valley and Georgia Pass, the Jefferson roadless area is bounded on the east by several forest roads, on the south by the forest boundary and forest roads, on the southwest by the Georgia Pass road, and on the north by the Continental Divide. The major portion of Jefferson was listed as roadless in the Roadless Area Conservation Rule, although the UASPP boundary as determined by field inventories extends the area significantly farther east to total 19,900 acres. The larger streams in the area include the North Fork of the South Platte River, Jefferson Creek, and Michigan Creek. Jefferson Lake lies in the center of the area and is a popular recreation area, as well as a municipal water supply. There is a long cherrystem road into the roadless area to Jefferson Lake to accommodate visitors to the lake and to the Colorado Trail which traverses the southern edge of the roadless area.

The northwestern part along the Continental Divide is alpine tundra and rock, while moderate elevations have a mixture of Engelmann spruce-subalpine fir, lodgepole, aspen, and bristlecone/limber pine. There are significant wetlands, especially along Jefferson Creek and the North Fork of the South Platte River. Rare plants and plant communities listed by CNHP include bristlecone pine/Thurber fescue (*Pinus aristata/Festuca thurberi*) and bristlecone pine/alpine clover (*Pinus aristata/Trifolium dasyphyllum*) montane woodlands, aspen/black twinberry (*Populus tremuloides/Lonicera involucrata*) montane riparian forests, diamondleaf willow/mountain marsh-marigold (*Salix planifolia/caltha leptosepala*) subalpine riparian willow carr, northern rockcress (*Draba borealis*), Porter feathergrass (*Ptilagrostis porterii*), sea pink (*Armeria scabra ssp sibirica*), and Weber saussurea (*Saussurea weberi*).

Boreal toads (*Bufo boreas*) are located in the Jefferson Creek area. Black bear are found throughout the area. Bighorn sheep range across the higher elevations with winter range in the central parts northwest of Jefferson Lake. Elk and mule deer are found across the area in the summer and both have winter range, as well as mule deer winter concentrations, along the southern boundary. Mountain goats may be found in the higher elevations in summer. Forested areas on the north, east, and south central portions are lynx habitat with extensive denning areas, and radio-collared lynx have been documented in the area. The Forest Service lynx amendment notes that the Georgia Pass lynx linkage is the best forested and least developed habitat connection that provides for north-south movements from South Park across the Continental Divide to Summit County. (USDA Forest Service 2004).

The proposed Guernsey and Deadman Gulches RNA is located southeast of Jefferson Lake. The Guernsey Creek fen is one of the features included in Senator Ken Salazar's legislation to designate the South Park National Heritage Area. CNHP shows the forested portions as the Jefferson Hill PCA of high significance, and part of the South Park PCA of very high significance overlaps the southern boundary of the roadless area. TNC Conservation Blueprint shows the northeastern part as moderately low and the southwestern part as moderate conservation value. SREP's Vision shows the whole area as core wilderness.

Boreas

The Boreas roadless area of some 11,400 acres lies between the Georgia Pass/Michigan Creek drainage and Boreas Pass/Tarryall headwaters. It is bounded on the east by the Georgia Pass road 54 and several forest roads east of Michigan Creek and near the forest boundary; on the south by the forest boundary; on the west by the Boreas Pass road, and on the north by the Continental Divide between the two passes. The extent of the roadless area as inventoried by UASPP is larger than the Forest Service Roadless Area Conservation Rule Inventoried Roadless Area. The major headwater tributaries of both Michigan and Tarryall Creeks are outside the roadless area.

The majority of the central part of Boreas is alpine tundra and rock, running south from the Continental Divide to within a mile or so of the southern boundary. On each side of this central spine are forests of Engelmann spruce-subalpine fir, lodgepole pine, aspen, and some bristlecone/limber pine. There are also montane meadows and wetlands. Rare plants and plant communities in this area listed by CNHP include Subalpine riparian willow carr, diamondleaf willow/water sedge (*Salix planifolia/carex aquatilis*), Colorado larkspur, (*Delphinium ramosum var alpestre*), four species of moonworts (*Botrychium lunaria*, *B. lanceolatum var lanceolatum*, *B. simplex*, *B. echo*), globe gilia (*Ipomopsis globularis*), hoary or silver willow (*Salix candida*), Leadville milkvetch (*Astragalus molybdenus*), Rocky mountain columbine (*Aquilegia saximontana*), slender cotton grass (*Eriophorum gracile*), and Weber saussurea (*Saussurea weberi*).

Black bear are found throughout the area. Bighorn sheep are found in the alpine areas, with some winter range on the east side. Elk summer across most of the area, and there is a large elk calving area along the east side. Mule deer are found across the area in the summer and have both winter range and winter concentrations along the extreme southern boundary. Mountain goats may be found in the higher elevations in summer. Lynx habitat is limited to a band of forested areas on the east, south, and western perimeter of the roadless area, but lynx have been documented in the area. The Georgia Pass lynx linkage is one of the best forested, undeveloped connections from South Park to Summit County. (USDA Forest Service 2004.) Boreal toads (*Bufo boreas*) are found in the Tarryall Creek riparian zone just to the west of Boreas.

The southern and central portion of the area includes the Boreas Mountain proposed RNA. A very small part of the CNHP's South Park PCA overlaps the southern boundary of the roadless area, and a portion of the Boreas Pass PCA (high significance) and the extensive Mosquito Range PCA (very high significance) overlaps in the Boreas Pass area. The TNC Blueprint shows the majority of the area as moderately high conservation value and SREP's Vision lists the area as core Wilderness.

Hoosier Ridge

The Hoosier Ridge roadless area, about 5,000 acres, runs along the Continental Divide from Boreas Pass to the National Forest boundary just east of Hoosier Pass. It is bounded on the east

by North Tarryall Creek or the Boreas Pass Road, on the south by roads and mining claims in the Deadwood Gulch/Iron Mountain area, on the west by the forest boundary near Highway 9 and on the north by the Continental Divide. It is a very irregularly shaped area due to surrounding roads and mining claims. Hoosier Ridge was not included in the Roadless Conservation Rule inventory as roadless. Tarryall Creek, located outside the roadless area, drains the central portion.

Because of its high elevation, Hoosier Ridge is primarily alpine tundra and rock, with Engelmann spruce-subalpine fir, and lodgepole pine found in the southeast portion adjacent to the Tarryall Creek headwaters. It includes significant examples of montane riparian forests. Rare plants include common, lance leafed, least, and reflected moonworts (*Botrychium lunaria*, *B. landeolatum* var., *B. simplex* and *B. echo*), globe gilia (*Ipomopsis globularis*), Leadville milkvetch (*Astragalus molybdenus*), alpine braya (*Braya humilis*), Colorado Divide whitlow (*Draba streptobrachia*), northern rockcress (*Draba borealis*), Rocky mountain columbine (*Aquilegia saximontana*), Weber saussurea (*Saussurea weberi*), and Penland alpine fen mustard (*Eutrema edwardsii* ssp *penlandii*).

Black bear are found across the area. Elk and mule deer summer in the area, but their winter ranges are further south. Lynx habitat and denning habitat are limited to the southeast forested area. There are records from 1979 of wolverine (*Gulo gulo*) in this area.

The Hoosier Ridge designated RNA lies along the Continental Divide in both the Pike and White River National Forests just east of Hoosier Pass. It was designated as a “typical example of alpine ecosystems in excellent condition, containing unique plant populations or demonstrated scientific and public interest.” (ROD, PSI, 1995) The Pike National Forest side of the RNA drains into Beaver Creek, the water supply for Fairplay. The RNA is entirely alpine grasslands, and at least ten rare plants are found here, including the federally threatened Penland alpine fen mustard (*Eutrema penlandii*). The major part of Hoosier Ridge roadless area along the Continental Divide is included in the large Mosquito Range PCA of CNHP, which they consider to have outstanding significance. The TNC Blueprint includes the whole roadless area as moderately high conservation value, and SREP’s Vision lists the roadless area as core wilderness and core agency.

Silverheels

Near Fairplay, the Silverheels roadless area is located in the “Y” formed by the junction of US Highway 285 and Colorado Highway 9. The eastern boundary is roughly defined by Tarryall Creek, the south by roads near the forest boundary, the west by Beaver Ridge, and the north by private lands in the Iron Mountain area. Forest road 194, which goes up Trout Creek between Little Baldy and Palmer Peak, is cherrystemmed out of the roadless area. The headwaters of Tarryall Creek, Trout Creek, and Beaver Creek are in this roadless area. The Roadless Conservation Rule inventory lists the western portion – primarily Mount Silverheels – as roadless, but UASPP field surveys documented that the eastern portion around Little Baldy Mountain is also roadless making the whole area is approximately 14,000 acres.

The northwest part of the Silverheels roadless area, dominated by Mount Silverheels, is alpine tundra or rock. The more moderate elevations across the south are Engelmann spruce-subalpine fir and lodgepole pine, with significant stands of aspen, some bristlecone/limber pine, and wetlands, especially in the northwest, south, and central areas. The wetlands areas include noted examples of Rocky Mountain willow/beaked sedge (*Salix monticola/carex utriculata*) and barren-ground willow/water sedge (*Salix brachycarpa/carex aquatilis*) willow carr communities. There are occurrences of Porter feathergrass (*Ptilagrostis porteri*), Penland alpine fen mustard (*Eutrema penlandii*), and snow grass (*Phippisia algida*).

Bighorn sheep are found in the upper elevations in the summer, with winter range to the south outside the roadless areas. Elk and mule deer summer across the area and mule deer have some winter range and concentration areas on the southern boundary, with elk winter range being further to the south. There is a large elk calving area along Trout Creek. Lynx overall and denning habitat covers most of the east part of Silverheels as well as some on the south side. There are also 1979 records of wolverine (*Gulo gulo*) and two rare insects, Alberta and polixenes arctic skippers (*Oeneis alberta* and *Oeneis polixenes*), are currently found in this area.

Little Baldy Mountain is a biologically rich subalpine area that conservationists recommend for further research as a potential RNA. The southern end of the Mosquito Range PCA, rated as outstanding conservation significance by CNHP, comes well down into the Silverheels roadless area and the South Park PCA overlaps somewhat on the southern boundary. The TNC Blueprint includes Silverheels in its moderately high category and SREP's Vision shows the whole roadless area as core Wilderness.

Historical and Cultural Features of Mount Evans High Peaks Complex

Some archeological, historical, and cultural features of note include:

- While the Mount Evans High Peaks complex is not in the main Colorado mineral belt, there was significant mining here. Prospects, tailings piles, and major mine structures can still be seen, although many are fading into oblivion. Miners found pay dirt in the Tarryall River near Fairplay, and later dredging was a prominent activity as miners sought the last remnants of gold.
- The Guanella Pass Scenic Byway is located between Burning Bear/Square Top and Mount Evans Wilderness. Once a pack trail, the road was created by Byron Guanella, a Clear Creek county official, and is currently undergoing major reconstruction and partial paving. This will bring more visitors to the area, highlighting the need to protect areas that are currently roadless.
- The road which divides Burning Bear and Square Top leads to the historical Geneva town site.
- The museum at Como highlights the railroad history of the area. The Denver South Park and Pacific Railway pioneered routes from Denver west across much of the Pike-San Isabel. One route was a railroad route from Morrison, across Kenosha Pass to Fairplay, continuing to Trout Creek Pass and onward to Leadville. A short-cut railroad across Boreas Pass connected Como to Breckenridge and then to Dillon.

Management Recommendations

Overview

The ecological value of protecting large roadless areas prompted the Wild Connections team to recommend Wilderness additions, new Wilderness designations, or Core management (Theme 1) for all but one of the roadless areas in the Mount Evans complex. There are several proposed RNAs (Theme 2); quiet use and connectivity areas (Theme 3); recreation emphasis areas (Theme 4); and a number of areas recommended for active management (Theme 5). There is a permanently developed recreation area recommended (Theme 8) at Jefferson Lake. Grazing, sustainable logging/fuels reduction projects, mining or energy development, recreation on designated trails and roads and dispersed camping is allowed throughout the complex, except for the statutory restrictions on activities in designated or proposed Wilderness areas. Table 5.7 lists the major management units by theme. Refer to the Mount Evans High Peaks complex map for specific locations and refer to the roadless area descriptions for more details on the unit.

Table 5.7: Mount Evans High Peaks Management Recommendations

Name	Acres	Recommended Management
Theme 1 – Natural Processes Dominate		
Mount Evans Wilderness	35,000	1.1 Existing Wilderness
Boreas	11,400	1.2 Recommended Wilderness
Burning Bear	20,600	1.2 Recommended Wilderness
Elk Creek	22,300	1.2 Recommended Wilderness (add to Mount Evans)
Jefferson	14,400	1.2 Recommended Wilderness
Silverheels	14,000	1.2 Recommended Wilderness
Square Top	8,000	1.2 Recommended Wilderness
Hoosier Ridge	5,100	1.3 Core Reserve
Theme 2 – Special Areas		
Boreas Mountain RNA	4,700	2.1 Research Natural Areas
Guanella Pass RNA	3,400	2.1 Research Natural Areas
Guernsey & Deadman Gulch RNA	2,800	2.1 Research Natural Areas
Hoosier Ridge RNA	700	2.1 Research Natural Areas
North Elk Creek RNA	5,100	2.1 Research Natural Areas
Theme 3 – Natural Landscapes with Limited Management		
Jefferson West	4,700	3.1 Quiet Use Areas
Duck Creek	2,600	3.2 Connectivity Areas
Geneva Creek	800	3.2 Connectivity Areas
Theme 4 – Recreation Emphasis Areas		
Guanella Pass Scenic Byway	500	4.2 Scenic Byways
Theme 5 – Active Management		
Beaver Ridge	2,500	5.1 Active Mgmt - Wildlife Habitat
Beaver Trout	4,600	5.1 Active Mgmt - Wildlife Habitat
Black Mtn	2,900	5.1 Active Mgmt - Wildlife Habitat
Boreas Pass	1,600	5.1 Active Mgmt - Wildlife Habitat
Deer Creek	4,300	5.1 Active Mgmt - Wildlife Habitat
Georgia Pass	2,700	5.1 Active Mgmt - Wildlife Habitat
Hall Valley (also in South Park)	18,700	5.1 Active Mgmt - Wildlife Habitat
Jefferson Creek	700	5.1 Active Mgmt - Wildlife Habitat
Montgomery Gulch	2,200	5.1 Active Mgmt - Wildlife Habitat
Theme 8 – Permanently Developed Areas		
Jefferson Lake	100	8.2 Permanently Developed Areas

Theme 1 – Natural Processes Dominate

Lands are managed to maintain highly natural conditions and management activities are virtually unnoticeable. They may include Wilderness as well as semi-primitive lands that provide user opportunities that are inconsistent with Wilderness such as mountain biking

Theme 1.1 – Existing Wilderness

Wilderness Areas are designated by Congress and managed to protect and perpetuate their natural state, while offering opportunities for solitude and individual self-reliance.

- Mount Evans Wilderness is the only Wilderness in this complex. It is described in detail in the roadless area descriptions above. It should be managed over the next decade to bring it up to the national standards reflected in the Wilderness Stewardship Challenge issued by the Forest Service in celebration of the 40th anniversary of The Wilderness Act.

(http://natlforests.org/wilderness_stewardship_10year.html)

Theme 1.2 – Recommended Wilderness

Recommended Wilderness areas are those that stakeholders advocate for inclusion in the National Wilderness Preservation System. All of the proposed wilderness areas meet the capability requirements of the Wilderness Act of 1964 for designation

The Wild Connections Conservation Plan calls for designation of (east to west) Square Top, Burning Bear, Jefferson (east portion), Boreas, and Silverheels roadless areas as Wilderness. They are each described in detail in the roadless area descriptions above. In general, the proposed Wilderness boundary is the same as the UASPP roadless boundary, except for Jefferson where the roadless area is larger. The following benefits were considered in making these recommendations: permanent protection to enhance wildlife habitat and connectivity, protecting sources of domestic water, providing for native species, and balancing motorized, high impact recreation in other parts of the complex with opportunities for quiet, challenging back country recreation.

We believe that all of these areas meet the capability, availability, and suitability criteria of the Wilderness Act and Forest Service Wilderness Handbook. These are discussed for the complex as whole below, with notations as to particular values or potential conflicts.

Capability

All of the proposed Wildernesses meet the capability requirements of the Wilderness Act of 1964 for designation. They all provide opportunities for solitude, challenge, and unconfined recreation once the trailheads are left behind. There are rugged mountains, and deep valleys without trails, long alpine ridges covered in tundra and rock, and forested ridges. The imprints of humans are substantially unnoticeable, as care was taken to eliminate major mining areas and recent logging operations. While there are old mines in some areas, especially in Silverheels, most are slowly disappearing. At the same time these remnants of human habitation and use give clear pictures of the mining history of the area, while providing a lesson in the length of time it takes for nature to heal in an unforgiving climate. Logging was limited or nonexistent within these proposed wildernesses, and logged areas and old access roads are recovering, bringing an end to overt signs of human use.

Availability

Likewise all the proposed areas are available for Wilderness with no known impediments. The proposed Wildernesses contain no active mines, though there is gold panning adjacent to the Silverheels area. The watersheds and streams are already allocated, and no new water projects are planned. The Roberts Tunnel passes underneath the Burning Bear roadless area, but we believe this is not a deterrent to designation.

Major highways are not anticipated to affect the areas, although the reconstruction of the Guanella Pass road will increase visitation and bring pressure to bear on the adjoining designated and proposed Wildernesses. The proposed Wilderness boundary of Jefferson was drawn to exclude the Colorado Trail, so that mountain bike use will not be affected there.

The Mount Evans High Peaks complex is not appropriate for timber harvest. Some mistletoe management plans have been implemented around campgrounds outside of the proposed wilderness, but the vegetation within the area is largely intact, with much of it tending toward mature and old growth characteristics. All or part of the Geneva, Elk Creek, Kenosha, Jefferson, Geneva, Boreas and Silverheels grazing allotments would be grandfathered in with Wilderness

designation, although over time they could be retired, where feasible. Overall, there are no known or anticipated threats to the area that would preclude its designation as Wilderness.

Suitability

Uses forgone in these proposed Wildernesses are motorized recreation on illegal roads and cross country snowmobile use off currently designated routes, as well as some restrictions on implementation of potential fuels reduction project. However, the very nature of these Wildernesses allows continued motorized access up to the perimeter of most of the areas, and in most cases between the areas. Roads in Geneva Creek, Hall Valley, Michigan Creek, Boreas Pass, and Beaver Creek will still provide motorized access to the Continental Divide.

There are numerous values that undergird the designation of the proposed Wildernesses and contribute to the National Wilderness System:

- Although the complex is primarily montane and alpine ecosystems, it will add substantial riparian areas and wetlands to the National Wilderness System, including the willow carrs and lakes on Square Top, the beaver ponds on Burning Bear, and extensive riparian zones on Jefferson, Boreas and Silverheels.
- Habitat and areas for potential reintroduction of large native carnivores, including lynx, would be protected. Numerous radio signals from lynx dispersing from the San Juans reintroduction were reported in this complex by the Colorado Division of Wildlife.
- Habitat for a host of rare and endangered plants, mammals, amphibians, insects, and birds, including boreal toad (*Bufo boreas*), greenback cutthroat trout (*Oncorhynchus clarki stomias*), arctic willow carrs, and lynx would be protected.
- Domestic water supply sources are best protected from sediment and pollution when they are located on roadless areas. The Mount Evans High Peaks proposed Wildernesses include tributaries to the North Fork of the South Platte River which transports part of metropolitan Denver's water supply to the South Platte River many miles downstream.
- There are outstanding opportunities for solitude, quiet backcountry recreation, and challenge throughout the area.
- Historical access to the forest in general is maintained on existing roads on Guanella Pass, in the Hall Valley, to Jefferson Lake, to Georgia Pass, over Boreas Pass, and up Beaver Creek.
- The Colorado Trail would be preserved as a non-motorized hiking and mountain biking trail.
- Designation of additional Wilderness in this complex would help ensure that the impacts of fragmentation by roads, damage to riparian zones, loss of old-growth forests, and conversion to intensive recreation will not be exacerbated.
- The high mountain ridges and valleys exemplify the wildness that now brings recreationists, tourists, and new residents to Colorado. With both the Continental Divide and the Colorado Trails running through the Mount Evans High Peaks complex, along with increasing requests for additional developed and motorized recreation, maintaining the area's wilderness characteristics is crucial.
- Local economies will be enhanced by their proximity to Wilderness areas, as these are prime destinations for self-guided and outfitter trips.

Theme 1.3 – Core Reserve

Core Reserves are areas of unroaded land which have been shaped primarily by natural forces but are not desirable for designation as wilderness. They emphasize the maintenance and sustainability of current biological diversity.

- Hoosier Ridge, although roadless and meeting many of the requirements for Wilderness, is recommended as a Core Reserve. Its irregular shape and many adjacent mining claims led us to recommend this less restrictive designation. The Hoosier Ridge designated RNA is partially located in Hoosier Ridge.

Theme 2 – Special Areas

Theme 2 areas are managed to protect or enhance areas with unusual characteristics, including Research Natural Areas, special biological or geological areas, cultural/historical areas or other special designations.

Theme 2.1 – Research Natural Areas: Existing and Proposed

Research Natural Areas (RNAs) form a long-term network of ecological reserves designated for research, education, and the maintenance of biodiversity. Emphasis is on research, study, observations, monitoring, and educational activities that allow ecological processes to prevail with minimal human intervention

To supplement the range of research opportunities and increase the ecosystem representation, Boreas Mountain, Guanella Pass, Guernsey and Deadman Gulches, and North Elk Creek areas, in addition to the designated Hoosier Ridge RNA, should be recommended for addition to the RNA system. Each has their unique combination of ecological values which will enhance the system:

- The Hoosier Ridge designated RNA, 700 acres, lies along the Continental Divide in both the Pike and White River Forests just east of Hoosier Pass. It was designated as a “typical example of alpine ecosystems in excellent condition, containing unique plant populations or demonstrated scientific and public interest.” (ROD, PSI, 1995) The Pike National Forest side of the RNA drains into Beaver Creek, the water supply for Fairplay. The RNA is entirely alpine grasslands, predominantly tufted hairgrass/golden avens (*Dece/Acro*), and kobresia/golden avens (*Komy/Acro*) with other area of willow and krummholz communities. Pika and yellow-bellied marmot are the most common animals, but elk mule deer, and coyotes have been observed. At least ten rare plants are found here, including the federally threatened Penland alpine fen mustard (*Eutrema penlandii*), as well as sea pink (*Armeria scabra*), globe gilia (*Ipomopsis globularis*), Leadville milkvetch, (*Astragalus molybdenus*), Weber saussurea (*Saussurea weberi*), Porsild’s whitlow grass (*Draba porsildii*), northern rockcress (*Draba borealis*), Colorado Divide whitlow (*Draba streptobrachia*), alpine poppy (*Papaver kluanenes*) and snow grass (*Phippsia algida*).
- The Boreas Mountain proposed RNA, some 4,700 acres lying in the central part of the Boreas roadless area, covers most of high slopes of Boreas Mountain itself, with a fringe of forest around all but the northern edge. In addition to the tundra, it is noted for good examples of subalpine vegetation such as Engelmann spruce, bristlecone pine, and aspen, as well as montane riparian forest Rocky Mountain fir-Engelmann spruce/mountain or ciliate bluebell (*Abies lasiocarpa-Picea engelmannii/Mertensia ciliata*). Headwaters of Frenchman Creek, which Center for Native Ecosystems notes is of biological significance, Volz Gulch, Holthusen Gulch, and tributaries of North Tarryall Creek, are in the proposed RNA.
- Guanella Pass proposed RNA of 3,400 acres is located in the Mount Evans Wilderness in the basin between Guanella Pass road and Mount Bierstadt, Mount Spaulding, and Gray Wolf Mountain. The rocky cliffs above the cirques, especially the ridge called the Sawtooth, provide dramatic contrast to Scot Gomer creek and wetlands below. The Guanella Pass proposed RNA would “preserve the area as an outstanding example of upper subalpine willow and fen wetlands and alpine tundra communities in excellent condition.” (Karin Decker, Colorado Natural Areas Program, March 1998) These alpine meadows and subalpine wetlands provide some of the best examples of their type in Colorado and are not

represented in other Pike-San Isabel RNAs. Five rare plant species include the not-so-common moonwort (*Botrychium lunaria*), mud sedge (*Carex limosa*), slender cotton grass (*Eriophorum gracile*), alpine poppy (*Papaver lapponicum* ssp. *occidentale*), and Kotzebue grass-of-Parnassus (*Parnassia kotzebuei*). Another wetland plant community, diamondleaf willow/water sedge (*Salix phylicifolia* ssp. *planifolia*/*Carex aquatilis*), is in excellent condition here and is tracked by CNHP because high-quality examples are rare.

- The 2,800-acre proposed Guernsey and Deadman Gulches RNA, located southeast of Jefferson Lake, has rare plant communities of Rocky Mountain willow/mesic graminoid (*Salix monticola*/mesic graminoid) montane riparian willow carrs, bristlecone pine/Thurber's fescue (*Pinus aristata*/*Festuca thurberi*) lower montane woodlands, and bristlecone pine/alpine clover (*Pinus aristata*/*Trifolium dasyphyllum*) upper montane woodlands, as well as good stands of bristlecone pine. It is included in the Jefferson Hill PCA of high significance and an arm of the large South Park PCA comes into the proposed RNA. The TNC conservation blueprint includes it in its large South Park area of moderate conservation interest.
- The 5,100-acre proposed North Elk Creek RNA on the eastern end of the complex is rated of high biological value by Center for Native Ecosystems. It includes the rare slender cotton grass (*Eriophorum gracile*), along with unique rock features and possible habitat for Mexican spotted owl (*Strix occidentalis lucida*) according to CNE. It is the lowest in elevation of the proposed RNAs in this complex. North Elk Creek runs through the center of the area providing good riparian habitat. The RNA includes the Mud Lakes PCA of general biodiversity interest.

Theme 3 – Natural Landscapes with Limited Management

Theme 3 management maintains or restores the natural character of these areas while providing limited opportunities for recreation, including backcountry motorized and non-motorized settings. Fuels treatment and prescribed fire are conducted primarily to maintain or restore natural ecological conditions. Livestock grazing is common

Theme 3.1 – Quiet Use Areas

Management emphasizes non-motorized recreation opportunities in a natural or natural-appearing landscape with little or no evidence of recent human-caused disturbance

The Jefferson roadless area was split along Trail 643, with the northeast recommend for Wilderness and the southwest recommended for quiet use providing opportunities for non-motorized recreation. This designation will preserve the roadless and non-motorized character of the southeastern part while allowing mountain bike use on Trail 643, and the Colorado Trail to the southwest. It will also help protect a sizeable area of lynx habitat from motorized recreation disturbances.

Theme 3.2 – Connectivity Areas

Management emphasis is to facilitate daily, seasonal, and natal dispersal movements of native wildlife between larger blocks of suitable habitat.

Geneva Creek and Duck Creek areas require some special attention to protect wildlife movement in an area of higher levels of motor vehicle in the corridor between Square Top, Burning Bear, and Mount Evans Wildernesses. The Guanella Pass lynx linkage area is located here. Management emphasis will facilitate daily, seasonal, and natal dispersal movements of native wildlife between larger blocks of suitable habitat. A broader discussion of connectivity is found below.

Theme 4 – Recreation Emphasis Areas

Lands in Theme 4 are managed to emphasize recreation opportunities and scenery values. These areas are typically centered on recreational destinations, transportation corridors, winter snow play areas, and near bodies of water. Motorized uses are common and include trails and roads.

Theme 4.2 – Scenic Byways

These areas consist of designated scenic byways, scenic areas, vistas, and travel corridors, or other high-quality scenic areas in which outstanding features draw attention and to which people gravitate.

Guanella Pass Scenic Byway begins at Grant and goes northward over Guanella Pass along Forest Road 118 into the Arapaho Forest and down to Georgetown. Because of the major reconstruction of the Guanella Pass road and subsequent anticipated higher traffic volume, special management options should be designed to protect the surrounding Wildernesses, the scenic qualities of the byway, and significant wildlife values.

Theme 5 – Active Management

These areas are managed to meet a variety of ecological and human needs with active management for a full spectrum of multiple use activities such as: wildlife habitat, energy development, timber harvest, livestock grazing, dispersed motorized recreation, prescribed fire, and vegetation treatments. This zone is where intensive timber management can occur for commercial production and fuels reduction objectives.

Theme 5.1 – Active Management for Wildlife Habitat

Management objective is to provide high quality, all-season habitat, forage, cover, escape terrain, solitude breeding habitat, and protection for a variety of wildlife species and associated plant communities

Black Mountain, Deer Creek, Hall Valley, Jefferson Creek, Georgia Pass, Boreas Pass, Montgomery Gulch, Beaver/Trout Creeks, and Beaver Ridge are included in this theme. They primarily are located between recommended Wildernesses or along the forest boundary, with road densities ranging from low to high. By nature many of them are located in a riparian valley with a road and will require some oversight to protect riparian vegetation and water quality. Seasonal or permanent restrictions should be applied to sensitive wildlife areas: mule deer fawning, elk calving, and bighorn sheep lambing areas, winter range for ungulates, locations of rare, endangered or sensitive species, such as boreal toad (*Bufo boreas*), and areas for accommodation of larger carnivores such as lynx.

Theme 8 – Permanently Developed Areas

These areas are permanently altered by human activities to the extent that ecological conditions and landscape appearances are likely outside their natural range of variability. Management emphasis is generally for highly developed recreation sites (ski areas), campgrounds, utility corridors, or mineral development areas.

Theme 8.2 – Permanently Developed Recreation Areas

These areas contain developed recreation sites that provide an array of recreational opportunities and experiences, usually in a forested environment.

Jefferson Lake has heavy use for camping, fishing, as stopover on the Colorado Trail, and as a domestic water supply. It is accessed by cherrystemming Forest Road 37 into the proposed Jefferson Wilderness area, and management will include sustainable camping practices and protection of water quality.

Connectivity

An important aspect of our conservation perspective is the potential for wildlife linkages between protected core areas. The Mount Evans High Peaks complex has natural connectivity because of the proximity of roadless areas. Most are separated by only one low to medium use road, and while these roads are barriers to some extent, most species of animals can move relatively freely between the Wildernesses and adjoining management areas. The notable exception to this is the Guanella Pass Road which will become a higher speed, high use road after the reconstruction. The Forest Service and Federal Highway Administration should consider wildlife crossings structures and strict enforcement of speed limits. The natural connectivity within the Mount Evans High Peaks Complex helps the complex function effectively as a large relatively continuous landscape.

Three linkage areas for lynx are located here (USDA Forest Service 2004). The Guanella Pass linkage bridges the high ridgeline between the PSI and the Arapaho Forest; Kenosha Pass linkage lies across US Highway 285 connecting the Mount Evans/Burning Bear areas south to Lost Creek Wilderness and environs. Georgia Pass linkage is characterized as “the best forested, and least developed habitat connection that provides for north-south movements from South Park across the Continental Divide to Summit County.” (USDA Forest Service 2004)

Connections between the complex and other nearby complexes are less than ideal. The Arapaho National forest to the north is contiguous, but the high elevations of the Continental Divide are a natural barrier to many animals. To the east, the Mount Evans High Peaks complex is hemmed in by rural mountain and suburban communities. US Highway 285 and private lands lie to the south. US Highway 285, also undergoing reconstruction, is potentially a major barrier to wildlife movement from Mount Evans High Peak to Lost Creek and South Park complexes. Already there is significant wildlife and automobile collisions along the highway and some wildlife crossing structures are being considered in the US Highway 285 reconstruction plans. Ranch lands in South Park may be of benefit to some ungulates, especially in winter, but also bring hazards of fences and of conflicts with livestock and residents. To the west, Colorado Highway 9 is also a major barrier as it is heavily traveled. This isolation of the High Peaks complex makes it all the more important to ensure the landscape integrity within the National Forest Lands.

Summary

The Mount Evans High Peaks complex epitomizes the best of wilderness scenic views and provides a great diversity of higher elevation habitat for wildlife and rare plants and animals, as well as excellent recreation opportunities. Lynx habitat and linkages are a notable feature. These high mountain ridges from Mount Evans west along the Continental are an integral part of the network of wildlands that will sustain the integrity of the Pike-San Isabel National Forest, both now and in the foreseeable future.