

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.

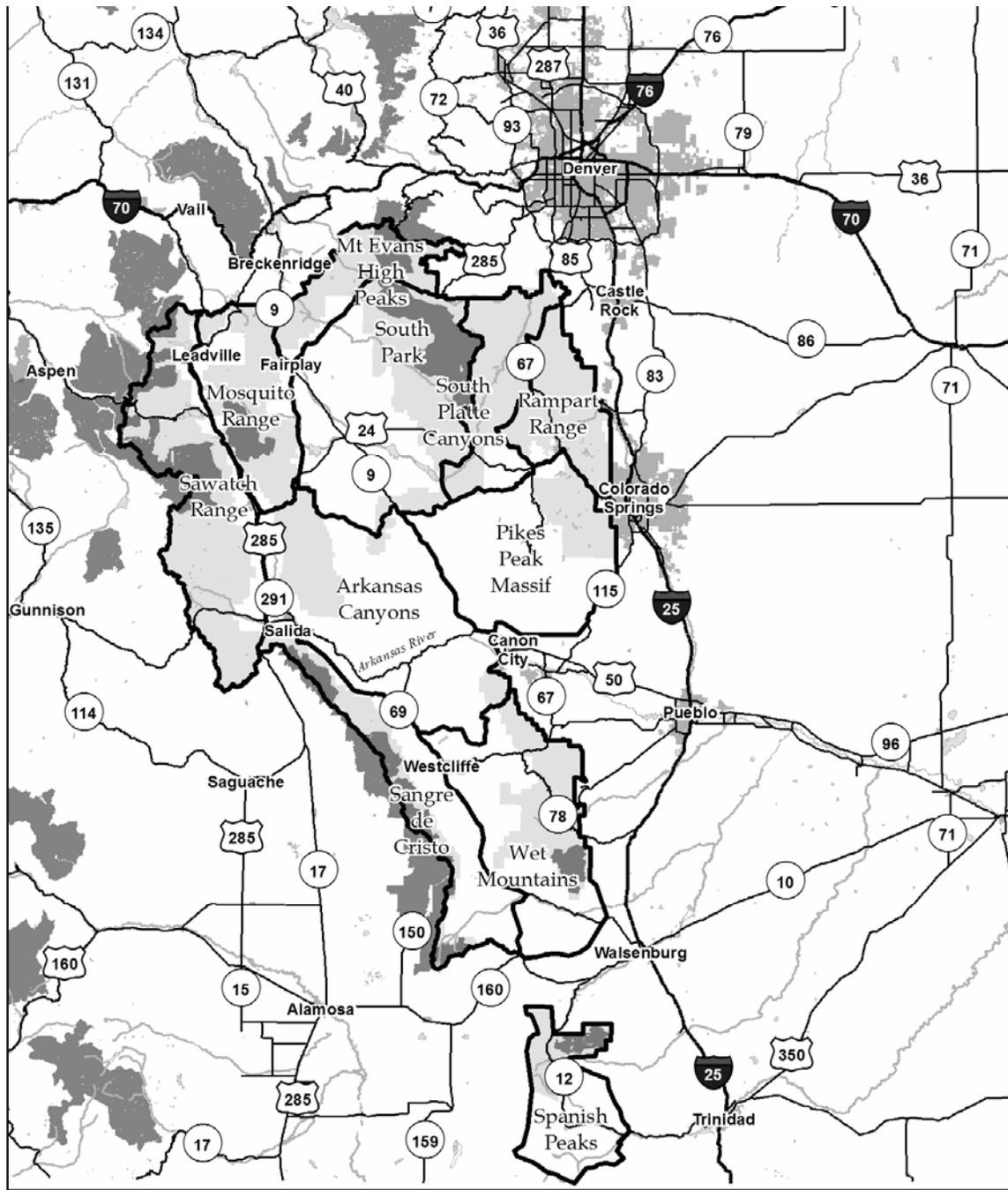
Complexes – Summary List by Watershed

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



Wild Connections Conservation Plan Geographic Complexes

- Interstate Highway
- U.S./State Highway
- City
- Pike & San Isabel National Forest
- Wilderness Area
- WCCP Complex



Complexes defined by the Upper Arkansas and South Platte Project as of 2006. Reference data from the Colorado Department of Transportation (roads, lakes, streams 2004).

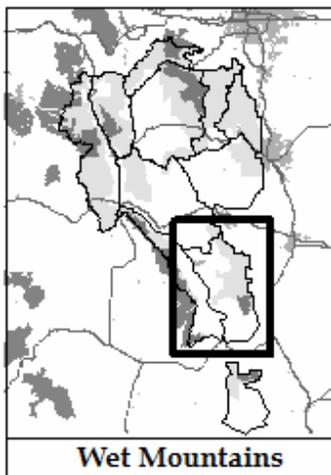


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The Wet Mountains Complex

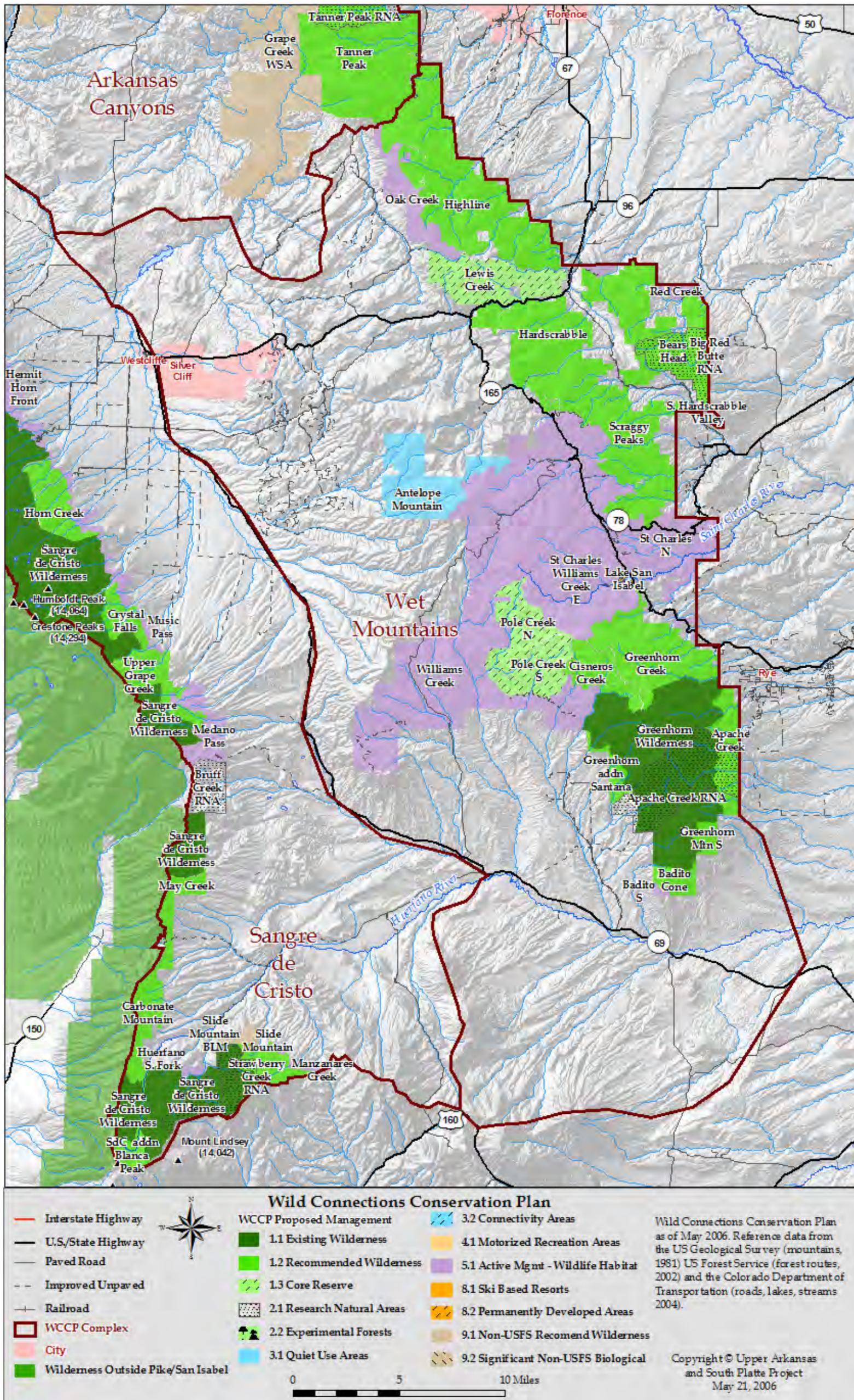


Highline roadless area



The Wet Mountain Complex is located between the Arkansas River on the north, the Huerfano drainage on the south, the central Wet Mountain Valley on the west and the I-25 corridor, Pueblo and the exurban subdivision at Colorado City on the east

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 5.12: Wet Mountains Complex Proposed Management

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

Description

Overview

The Wet Mountain complex is located between the Arkansas River on the north, the Huerfano drainage on the south, the central Wet Mountain Valley on the west, and the I-25 corridor, Pueblo and the exurban subdivision at Colorado City on the east. The San Isabel National Forest covers the mountainous portions, with some BLM land on the north, south, and west. Approximately half of the complex, primarily on the west side in the Wet Mountain Valley and in the Huerfano valley, is private land. The complex is located mostly in Custer and Huerfano counties with the northern and eastern sides in Fremont and Pueblo counties respectively. Looking east from the Wet Mountain Valley the rolling intermountain grasslands rise to the ridge of mountains, and from Interstate 25 the mountain ridge of the complex is immediately to the west.

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 Wet Mountain range trends from northwest to southeast, gradually ascending in elevation to Greenhorn Mountain Wilderness at the south end. The granite core of the range was formed during the Laramide orogeny that began uplifting these mountains through surrounding sedimentary rock some 65 million years ago. In addition to Greenhorn Mountain, other notable peaks are Bears Head, Scraggy Peaks, St. Charles Peak and North Peak. Elevations range from 6,400 feet on the northeast to 12,347 feet on Greenhorn Mountain and down to 7,300 feet in the far south, where the complex extends beyond the Forest boundary across private lands into the Huerfano drainage. A number of creeks flow generally eastward, including Oak Creek, North and South Hardscrabble Creeks and the St. Charles River. Williams Creek drains the southwestern part of the complex, eventually joining the Huerfano River that flows east toward the Arkansas River.

The lower elevations found here are generally forest covered mountains, with the exception of tundra on the highest parts of North Peak and Greenhorn Mountain. The vegetation on the north end of the complex is primarily Douglas-fir and some significant areas of ponderosa pine on the northeast around Bears Head, while Engelmann spruce-subalpine fir appear in the higher mountain areas such as St. Charles Peak, North Peak, and Greenhorn Mountain, with more Douglas-fir and mixed forest on the south. In addition there are smaller acreages of aspen, particularly on the west side of the mountains. The Wet Mountain Valley and the Huerfano drainage include mountain grasslands, ponderosa pine, piñon-juniper woodlands, shortgrass prairie, and Gambel oak shrublands.

Habitat for black bear, mountain lion, bighorn sheep, deer, elk and lynx are found across appropriate parts of complex. This includes bighorn sheep winter range on the south end, large elk calving areas east and west of the St Charles and Greenhorn Mountain areas and pronghorn winter range in the central Wet Mountain Valley and to the south of Greenhorn Mountain, both outside the Forest boundaries. Rare species include Mexican spotted owl (*Strix lucida occidentalis*), three genetically pure strains of greenback cutthroat trout (*Oncorhynchus clarki stomias*), American peregrine falcon

(*Falco peregrinus anatum*), historical records of wolverine (*Gulo gulo*), and many rare plants and plant communities.

Ecological values of the Wet Mountains complex

Two proposed RNAs - Apache Creek and Big Red Butte; several Colorado Natural Heritage Program PCAs (one each of very high and high significance, three of moderate significance and one of general biodiversity interest), and two State Wildlife Areas attest to the ecological importance of the Wet Mountains and surrounding grasslands. In addition, the majority of the complex is rated by The Nature Conservancy’s Conservation Blueprint (TNC Blueprint) be of moderate biological value and Southern Rockies Ecosystem Project’s Vision (SREP Vision) shows the mountain roadless areas as core wilderness.

Roadless and Wilderness Areas

There are 16 Wilderness and Roadless Areas in this complex including Greenhorn Mountain Wilderness. Most of these areas are stepping stones along the mountain crest, separated only by one road, often in a creek corridor. All but four were included in the Roadless Area Conservation Rule, although several that were inventoried by UASPP have significantly larger acres. Table 5.22 lists the areas.

Wilderness Areas

Greenhorn Mountain Wilderness

Greenhorn Mountain Wilderness, at more than 22,000 acres with two high peaks – North Peak and Greenhorn Mountain – anchors the south end of the mountain range. It rises dramatically from the surrounding lower areas on the east, south and west, and from the

Wilderness tundra there are unparalleled views of both the Colorado plains and the surrounding mountains – Spanish Peaks to the south, the Sangre de Cristo Range to the west and northwards along the Wet Mountains. The Wilderness boundaries are set back from the Forest boundary on the east, south and west, and the north boundary follows part of trails 1316, 1315 and topographical features. The Roadless Areas around the perimeter are recommended for addition to this Wilderness, as they remain unroaded and wild.

About two-thirds of the Wilderness is forested, mostly with Douglas-fir, aspen and Engelmann spruce-subalpine fir, with areas of mixed conifers and some ponderosa pine and piñon-juniper especially on the southwest side, and Gambel oak. Alpine tundra is found near the summits of North Peak and Greenhorn Mountain.

Black bear are found across the central portion of the Wilderness; bighorn sheep, deer and elk are found year round, with bighorn winter range across most of the Wilderness. Deer and elk have winter range in the lower elevations on the east, south and west sides, and a significant portion of the large elk calving area to the west overlaps the Wilderness. Lynx habitat is found across the

Table 5.22: Wet Mountains Roadless Areas

Name	Acres (UASPP)	Roadless Under Roadless Rule
Antelope Mountain	8,000	No
Apache Creek	3,800	Yes
Badito Cone	1,500	Yes
Bears Head	12,400	No
Cisneros Creek	3,500	Yes*
Greenhorn Creek	9,100	Yes
Greenhorn Mountain Wilderness	22,000	n/a
Greenhorn Mountain South	900	Yes
Hardscrabble	8,400	Yes
Highline	19,700	Yes*
Lewis Creek	6,800	Yes*
Pole Creek	8,800	No
Santana Butte	1,100	Yes
Scraggy Peaks	15,200	Yes
St. Charles Peak	16,900	Yes
Williams Creek East	5,700	No

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

Wilderness. Species of note found in the Wilderness are greenback cutthroat trout (*Oncorhynchus clarki stomias*), peregrine falcon (*Falco peregrinus anatum*), Mexican spotted owl (*Strix occidentalis lucida*), a historical record of wolverine (*Gulo gulo*), and the rare reflected moonwort (*Botrychium echo*).

The Apache Creek proposed RNA, of some 10,100 acres, spans the central Wilderness from east to west. PCAs overlapping the Wilderness include Greenhorn Creek (very high significance), South Apache Creek (moderate significance), and Mexican Springs (general biodiversity interest). The TNC Blueprint's Conservation Blueprint shows the Wilderness as moderate conservation value.

The only trails in the Wilderness are in the northern half – only eleven miles- while the southern half, which is very rugged and virtually without water, probably has few visitors.

Unprotected roadless areas

Other Roadless Areas in the complex exhibit a great diversity of vegetation and wildlife, and all are of relatively low elevation compared to many of the roadless areas in the Pike-San Isabel. From north to south, they are:

Highline

The Highline roadless area of 19,700 acres, located on the north end of the complex, is bounded on the north and east by the Forest Boundary, on the south by Highway 96 along North Hardscrabble Creek, and on the west by the Oak Grade Road, trail 1329, forest road 274, and private property. The Lewis Creek motorized trail cuts across the roadless area on the south. Several creeks, including Newlin Creek and Lewis Creek, drain east. Locke Park is within the boundary on the west side. Adobe Peak and Stull Mountain, both at more than 10,000 feet are notable, and elevations are as low as 6,700 feet on the northeast side. The area inventoried by UASPP is significantly larger on both the north and south than that of the Roadless Area Conservation Rule inventory.

The Highline roadless area is primarily Douglas-fir, with some smaller areas of ponderosa pine and aspen, and a significant area of piñon-juniper and mountain shrubland on the north. Rare species include sightings as late as 2000 of Mexican spotted owls (*Strix occidentalis lucida*). The rare Degener beardtongue (*Penstemon degeneri*) grows here.

Black bear and mountain lion roam across the area, with areas of high bear activity in the summer and fall around the periphery of the area. Bighorn sheep have both summer and winter range on the south end and nearby foothills on the east. Mule deer have summer range across the whole areas with winter range on the east and south side. There is both summer and winter range across the area for elk, with an elk calving area on the northwest side. Lynx habitat, including good denning habitat, exists across the south half. Newlin Creek and its headwaters have one of the few remaining genetically pure populations of greenback cutthroat trout (*Oncorhynchus clarki stomias*), an important value considering the radical decrease in this species over the past 100 years. The lower elevations of Highline and riparian areas enhance the biodiversity of this area.

An area of biological richness in the Highline roadless area is found in the Newlin Creek-Adobe Peak areas with the aforementioned greenback cutthroat trout (*Oncorhynchus clarki stomias*), Mexican spotted owl (*Strix occidentalis lucida*) and peregrine falcon, aspen stands and old-growth spruce-fir. There are three PCAs in the area: Locke Park of high significance, South Fourmile Creek of moderate significance, and Smith Creek of general biodiversity interest. The

roadless area is rated as moderate conservation value by the TNC Blueprint. SREP's vision lists the roadless area as core wilderness.

Hardscrabble

The Hardscrabble Roadless Area is 8,400 acres that is defined by the three forks of Hardscrabble Creek: it is bounded on the north by North Hardscrabble Creek as it follows State Highway 96 and on the south by forest road 386 as it follows South Hardscrabble Creek. Middle Hardscrabble Creek rises on Rudolph Mountain (10,334 feet) on the west central boundary, falling steeply to about 7,600 feet on the eastern boundary. The eastern and western boundaries follow the National Forest boundary. The Roadless Area Conservation Rule inventoried area is slightly smaller than the area inventoried by UASPP.

The north side of Hardscrabble has Douglas-fir with a few incursions of ponderosa pine and mountain shrublands, while the south side is mixed blocks of Douglas-fir, aspen, mountain shrublands, and a bit of Engelmann spruce-subalpine fir. CNHP lists a rare natural community of white fir-Colorado blue spruce-narrowleaf cottonwood/Rocky Mountain maple (*Abies concolor-Picea pungens-Populus angustifolia/Acer glabrum*) montane riparian forests and prairie violet (*Viola pedatifida*) in this area.

Mexican spotted owls (*Strix occidentalis lucida*) are recorded here. Mountain lion are found here, and there are summer and fall areas of high black bear activity. Elk have both summer and winter range, and deer use the whole area in the summer and the lower elevations on the east side in winter. There is lynx habitat, including good denning habitat, across the whole area, and the north side is potential peregrine falcon habitat. The ruggedness of the area provides security for wildlife, as human encounters are likely rare in the interior.

Hardscrabble is part of the larger TNC Blueprint area of moderate conservation value. SREP's Vision show the roadless area as core wilderness.

Bears Head

The 12,400-acre Bears Head roadless area is an outtrigger of forest southeast of Wetmore. It is surrounded on all sides by private property and includes the large private holding in Babcock Hole. The roadless area boundary is the same as the Forest boundary. The nearest perimeter roads are County Road 201 on the east, Colorado Highway 96 on the north, forest road 387 on the west and forest road 212 – the North Creek road – on the south. Bears Head (7,755 feet), Little Red Butte (7,864 feet) and Big Red Butte (7,864 feet) are prominent landmarks. Red Creek drains out of Babcock Hole to the northeast, South Hardscrabble Creek flows through the lush private pastures on the west, and North Creek is adjacent to the south boundary. Although sizable, Bears Head was never included in the Roadless Conservation Rule inventories.

The Bears Head roadless area has stands of ponderosa pine on the east side and ponderosa pine and Douglas-fir on the west side. Some piñon-juniper and mountain shrublands are found around the edges in the lower elevations and gulches. The Mason Gulch fire of 2005 burned across nearly all of the roadless areas, so vegetation patterns are likely considerably altered. A full assessment of the post-fire habitat will be revealing. The not-so-common hog-nosed skunk (*Conepatus leuconotus*), Degener beardtongue (*Penstemon degeneri*) and prairie violet (*Viola pedatifida*) are listed by CNHP as rare species in the area.

The low elevation of the area provides excellent habitat for wild turkey, black bear, mountain lion, deer, and elk year around. Pronghorn can be seen on the northeastern edges. Although

Babcock Hole is excluded from the roadless area, its lower elevations (6,200 - 6,400 feet), limited ranching activities, and a narrow canyon entrance provide relatively secure wildlife habitat that complements the surrounding forest land.

The Big Red Butte proposed RNA of more than 4,000 acres is located across the southern third of the Bears Head area. The Colorado Natural Areas survey noted that RNA designation would preserve and provide representation of ponderosa pine forest/Gambel oak and Gambel oak/mountain mahogany shrublands communities (*Pinus ponderosa/Quercus gambelii* and *Quercus gambelii/Cercocarpus montanus*) in good condition. Most of Bears Head is included in the larger TNC Blueprint area of moderate conservation value. SREP's Vision shows the roadless area as core wilderness. The effects of the Mason fire on these conservation values are unknown at this time.

Scraggy Peaks

The Scraggy Peaks roadless area's 15,200 acres are bounded on the east by the National Forest boundary and Pueblo Mountain Park; the south boundary follows the National Forest boundary and natural features west until it intersects trail 1321. The western boundary follows trails 3121, 1384, 1322, 1388, 1323, forest road 383, and the National Forest boundary from near Bigelow Divide north to forest road 386 and South Hardscrabble Creek. The northern boundary is along forest road 386 and South Hardscrabble Creek. The area is cut by a number of creeks creating very rugged topography with canyons and ridges. Round Top Mountain (10,180 feet), Scraggy Peaks (9,198 feet), and Potato Mountain (8,872 feet) are notable peaks in the area.

The Scraggy Peaks roadless area's forests are primarily Douglas-fir with some mountain shrublands, aspen and ponderosa pine. Prairie violet (*Viola pedatifida*) white fir-Colorado blue spruce-narrowleaf cottonwood/Rocky Mountain maple (*Abies concolor-Picea pungens-Populus angustifolia/Acer glabrum*) montane riparian forests, and Mexican spotted owls (*Strix occidentalis lucida*) are recorded here.

Bear, mountain lion, elk and mule deer find year round habitat here, especially in the lower areas. A large elk calving area is located just south of the roadless area. There is patchy lynx habitat, including both winter and denning habitat, across the whole area.

Scraggy Peaks is part of the larger TNC Blueprint area of moderate conservation value. SREP's Vision shows the roadless area as core wilderness.

Antelope Mountain Roadless Area

The Antelope Mountain roadless area of 8,000 acres juts out into the Wet Mountain Valley northwest of St. Charles Peak. Its eastern boundary is along forest roads 396, 395, and 314, and the south, west, and north boundaries are contiguous with the Forest boundary. Antelope Mountain (10,750 feet), Antelope Park, and Lilly Park are on the west side of the area. Antelope and Breece Creek drain west to the Wet Mountain Valley. This area was not included in the Roadless Conservation Rule inventory.

The Antelope Mountain roadless area has extensive areas of mountain grasslands and aspen stands, with some Engelmann spruce-subalpine fir, bristlecone/limber pine, limber pine, and Douglas-fir.

Mountain lion and bear are found here with an area of high summer activities for bears across the western three-fourths of the area. Deer use the area in the summer but are concentrated on the

west side, with winter range on the south portion. Elk have both summer and winter range across the area. A large elk calving area extends from Antelope Mountain, where it overlaps the eastern side of the roadless area, running southeast well into the Greenhorn Mountain Wilderness. There is very scattered lynx habitat across the area. The mountain meadows and aspen groves provide good contrast to the forested conifer slopes of most of the rest of the complex.

The Breece Creek area on the south side contains many stands of old aspen. Like the rest of the Wet Mountains, Antelope Mountain is included in The TNC Blueprint's designation of moderate conservation value. SREP's Vision lists the roadless area as core wilderness.

St. Charles Peak

The St. Charles Peak roadless area of 16,900 acres is located west of Colorado Highway 165 from Bishops Castle to just south of Lake San Isabel. The highway and National Forest boundary forms the eastern boundary; trail 1318 is the southern boundary; forest road 369 is on the west; and forest road 360 and Ophir Creek form the northwest boundary. St. Charles Peak at 11,784 feet dominates the northern end of the area, where tributaries flow off the peak to form the St. Charles River that flows into Lake San Isabel. To the east, outside the roadless area, the St. Charles River cuts a major canyon that is one of the few remaining Mexican spotted owl locations in central Colorado. Lake San Isabel, a popular recreation area, is excluded from the roadless area. UASPP's boundary is larger than the Roadless Area Conservation Rule Inventoried Roadless Area on the west and south sides.

The vegetation in the St. Charles Peak roadless area is predominantly Engelmann spruce-subalpine fir. St. Charles Peak also has Douglas-fir interspersed with aspen on the east side, especially in the St. Charles River drainage across the south central part of the roadless areas. There are extensive wetlands on the west central side of the area. Rare species include reflected moonwort (*Botrychium echo*) and historical records of wolverine (*Gulo gulo*).

Mountain lion and black bear are found across the area, and there are areas of high bear summer and winter activities on the east side, with the summer activity concentrations extending westward in the St. Charles drainage. Bighorn sheep are found on the south side in the summer, part of a larger summer range extending south into Greenhorn Mountain Wilderness. Deer and elk have summer range across the area with deer winter range on the east and elk winter range on the north side. There are several elk calving areas in St. Charles Peak. The large calving area that extends from Antelope Mountain southeast into the Greenhorn Mountain Wilderness overlaps into the west side of the St. Charles Peak area. Another calving area is located in the Amethyst Creek area and a third large calving area extends from the eastern edge of the roadless area along the St. Charles Creek drainage for some 8-10 miles to the east. Lynx general habitat with both winter and denning habitat, spreads across the area, although it is somewhat scattered on the south side of the roadless area.

A large, relatively undisturbed, steep-sloped area of spruce-fir and Douglas-fir is located in the east central portion of the area. St. Charles Peak is included in the TNC Blueprint large Wet Mountain area of moderate conservation value. SREP's Vision lists the roadless area as low use.

Williams Creek East

The Williams Creek East roadless area, some 5,700 acres, lies southwest of St. Charles Peak on the edge of the San Isabel National Forest. The area is bounded on the east and south sides by forest roads 369 and 402, on the west by the National Forest boundary and on the north by forest roads 634 and 369. The East Fork of Williams Creek originates in the north central area and

flows along the west side.

The Williams Creek East roadless area's vegetation is predominantly mountain grasslands and aspen, with wetlands and some Engelmann spruce-subalpine fir on the east side at higher elevations.

Mountain lion are found across the area, and black bear have areas of high summer activities in the west and high fall activities in the southwest. Elk have both summer and winter range, and most of the area is part of the large elk calving grounds extending from Antelope Mountain southeast into Greenhorn Mountain Wilderness. Mule deer have summer range across the area, with winter range in the west. There is lynx habitat, including denning habitat, across the area, although like much of the Wet Mountains, the habitat is quite scattered. Rare species in the area include reflected moonwort (*Botrychium echo*) and historical records of wolverine (*Gulo gulo*).

Most of Williams Creek East is included in TNC's large Wet Mountain area of moderate conservation value. SREP's Vision lists the roadless area as low use. The mountain meadows, aspen stands, and wetlands in the Williams Creek East area contribute much diversity to the conifer forests which predominate in this complex.

Pole Creek

The Pole Creek roadless area of 8,800 acres is south-southwest of St. Charles Peak, bounded on the east and south by forest roads 369 and 637 respectively, on the west by trail 1397 and the National Forest boundary, and on the north by forest road 402. Most of the headwaters of the North and South Forks of Bear Creek and Pole Creek are inside the area. This area was not included in the Roadless Conservation Rule inventory.

The vegetation in the Pole Creek roadless area is Engelmann spruce-subalpine fir on the eastern higher portion, a large band of aspen through the central portion, and a mix of Douglas-fir, mountain shrublands and piñon-juniper is on the southwest. Reflected moonwort (*Botrychium echo*) is a rare plant of the area.

Mountain lion and black bear can be found across the area, with bears concentrated on the west and southwest. Bighorn sheep are found on the west side in the summer. Elk have both summer and winter range here, and the large elk calving grounds extending from Antelope Mountain southeast into Greenhorn Mountain Wilderness runs across the center of the roadless area. Mule deer have summer range across the area, with winter range on the west. There is very scattered lynx habitat in the area, including denning habitat, except on the far southwest side. The Forest Service has identified a lynx linkage between Pole Creek and the Muddy Creek headwaters of the Sangre de Cristo Mountains.

All of Pole Creek is included in TNC's large Wet Mountain area, which is of moderate conservation value. SREP's Vision lists the roadless area as core wilderness.

Cisneros Creek

The Cisneros Creek roadless area, at 3,500 acres, is located north of North Peak and Greenhorn Mountain. The boundary on the east follows forest road 369, the access road to Greenhorn Mountain Wilderness. On the south the area is directly adjacent to the Greenhorn Wilderness. On the west the boundary of the area follows forest road 409 to its junction with forest road 369. Cisneros Creek flows across the area. Approximately two-thirds of the area is included in the Roadless Area Conservation Rule inventory, with the UASPP area larger on the northwest.

The Cisneros Creek roadless area is mostly Engelmann spruce-subalpine fir, with some aspen and wetlands. Reflected moonwort (*Botrychium echo*) is a rare plant of the area. There is an historical wolverine (*Gulo gulo*) record in the general vicinity, although the precise location is not available.

Mountain lion can be found across the area. Bighorn sheep are found across the whole area in the summer. Elk have summer range across the area and winter range in the lower elevations on the west side, and the large elk calving grounds extending from Antelope Mountain southeast into Greenhorn Mountain Wilderness covers the whole roadless area. Mule deer also are found across the area in the summer. There is lynx habitat in the area as well.

Cisneros Creek is included in TNC's moderate conservation value category. SREP's Vision shows the roadless area as core Wilderness.

Greenhorn Creek

The Greenhorn Creek roadless area's 9,100 acres lies northeast of Greenhorn Mountain and directly east of the Cisneros Creek roadless area. It is bounded on the west by forest road 369, the access road to Greenhorn Mountain Wilderness. On the south the area is directly adjacent to the Greenhorn Wilderness. The eastern boundary is the forest boundary adjacent to Colorado Highway 165, and the northern boundary follows trail 1318 to Colorado Highway 165. Several creeks drain to the east including North Muddy Creek and Greenhorn Creek. The majority of the area was included in the Roadless Conservation Rule inventory.

The Greenhorn Creek roadless area is forested with a wide band of Engelmann spruce-subalpine fir through the middle, montane meadows and wetlands on the higher west side, and Douglas-fir, bristlecone/limber pine and aspen along the lower eastern side. There are two rare montane riparian communities: narrowleaf cottonwood/thinleaf alder (*Populus angustifolia/Alnus incana*) and white fir-Colorado blue spruce-narrowleaf cottonwood/Rocky Mountain maple (*Abies concolor-Picea pungens-Populus angustifolia/Acer glabrum*) as well as the reflected moonwort (*Botrychium echo*) in the area.

There is an historical wolverine (*Gulo gulo*) record in the general vicinity, although the precise location is not available, and Mexican spotted owls (*Strix occidentalis lucida*) are recorded here. One of the complex's three locations of genetically pure greenback cutthroat trout (*Oncorhynchus clarki stomias*) is found in the Greenhorn Creek and its headwaters. Mountain lion can be found across the area. Black bear have summer high activity areas on the east. Bighorn sheep, mule deer, and elk summer across the area, with deer winter range on the east and elk winter range on the edges. There is a small elk calving area on the east side. Lynx habitat, including denning habitat, is found in all but the lowest elevations.

The Greenhorn Creek PCA of very high significance is located across the southern half of Greenhorn Creek and over into the Greenhorn Mountain Wilderness. As with the other Wet Mountain areas, Greenhorn Creek is part of TNC's area of moderate conversation value. SREP's Vision shows the roadless area as core wilderness.

Apache Creek and Greenhorn Mountain South

The 3,800-acre Apache Creek roadless area and the 800-acre Greenhorn Mountain South roadless area lie east of Greenhorn Mountain Wilderness, with the eastern boundary along the forest boundary. These roadless areas are directly adjacent to the Greenhorn Mountain Wilderness to

the west. Apache Creek and Greenhorn Mountain South share the same natural features and are separate areas only because of the configuration of the Wilderness boundary. The steep slopes have deeply incised canyons in the drainages such as Graneros Creek, Little Graneros Creek, and the two forks of Apache Creek. Both areas were included in the Roadless Area Conservation Rule inventory.

The Apache Creek roadless area is a mix of Douglas-fir and bristlecone/limber pine with some small areas of mountain shrublands and piñon-juniper. Greenhorn Mountain South is about equally covered with Douglas-fir and mountain shrublands

American peregrine falcon (*Falco peregrinus anatum*), Mexican spotted owl (*Strix occidentalis lucida*) and one of the three genetically pure populations of greenback cutthroat trout (*Oncorhynchus clarki stomias*) are rare species found here. Mountain lion and black bear summer and fall high activity locations are found across the area. Bighorn sheep have winter range here, although they likely go to the higher elevations in the Wilderness in the summer. Mule deer and elk have summer and winter range across most of the area, and there is a large elk calving area to the east of Apache Creek outside the forest boundary. There is lynx habitat across the areas although the habitat is quite scattered.

The Apache Creek proposed RNA stretches east-west across the Wilderness and adjacent roadless areas, with its eastern end in Apache Creek. This proposed RNA is described in the discussion of the Greenhorn Mountain Wilderness above. The South Apache Creek PCA of moderate significance is contiguous with the proposed RNA in this area. Apache Creek and Greenhorn Creek South are both part of TNC's area of moderate conversation value. SREP's Vision shows both roadless areas as core wilderness.

Badito Cone

Badito Cone (8,942) is located at the south end of the Wet Mountain Range, with its distinctive volcanic cone visible from the surrounding area. The 1,500-acre Badito Cone roadless area is directly adjacent to the Greenhorn Mountain Wilderness on the north. The other three sides of the area are defined by the Forest Boundary.

The Badito Cone area is noted for being almost entirely piñon–juniper.

American peregrine falcon (*Falco peregrinus anatum*), Mexican spotted owl (*Strix occidentalis lucida*) and greenback cutthroat trout (*Oncorhynchus clarki stomias*) are rare species listed here. Mountain lion and black bear are found in the area. Bighorn sheep have winter range, while elk and deer have both summer and winter range in the Badito Cone roadless area.

Badito Cone is part of TNC's area of moderate conversation value. SREP's Vision lists the roadless area as core wilderness.

Santana Butte

The Santana Butte roadless area of 1,100 acres is directly adjacent to the Greenhorn Mountain Wilderness on the north and east. The National Forest boundary defines the rest of the boundary of the area. Santana Butte itself is 8,433 feet in elevation and the western side of this small area is generally lower elevations. Maes Creek flows across the central area.

Like the Badito Cone roadless area, the Santana Butte roadless area is all piñon–juniper, thus providing lower elevations adjacent to the higher designated Wilderness.

Mountain lion and black bear are found here, with summer and fall areas of high bear activities. Bighorn sheep have winter range across the whole area. There is elk summer range, and the roadless area lies in the southern extent of the large elk calving grounds extending from Antelope Mountain southeast into Greenhorn Mountain Wilderness. Mule deer have summer and winter range across the area.

Santana Butte is part of TNC's area of moderate conservation value. SREP's Vision lists the roadless area as core wilderness.

Historical and Cultural Features of the Wet Mountains

Some archeological, historical and cultural features of note include:

- The Greenhorn River and Greenhorn Mountain take their name from the 18th century Comanche Chief Cuerno Verde. He and his band were defeated in a battle with Juan Bautista de Anza near the foot of Greenhorn Mountain in 1779.
- Coal and oil discovered north of the complex near Florence and Cañon City brought early energy development and the railroad. A. M. Cassidy drilled the first oil well west of the Mississippi in 1862 north of Cañon City.
- The Hardscrabble mining district southwest of Wetmore attracted prospectors as early as 1863, but it did not produce much wealth until the 1870s when the Pocahontas-Humboldt and the Bassick veins produced several million dollars worth of silver and gold.
- Silver Cliff in the Wet Mountain Valley had the first permanent settlers in the valley in 1869. The following year a colony of more than 100 German families from Chicago took up homesteads. In 1878 rock composed of 75% silver was discovered. A few years later, the terminus of the Denver and Rio Grande railroad was placed a mile to the west at Westcliffe. Eventually the mining boom ended, the mines and mills closed, and the railway was abandoned. Silver Cliff and Westcliffe now serve as business and cultural centers for the surrounding ranches of the Wet Mountain valley.

Management Recommendations

Overview

The northern part of the Wet Mountain Complex is recommended primarily for Theme 1 in a series of adjacent designated and proposed Wilderness areas (Theme 1.1 and 1.2) or Core Reserves (Theme 1.3), separated from each other in most cases by just one road. On the south, roadless areas that ring Greenhorn Mountain Wilderness are recommended for additions to the Wilderness (Theme 1.2) and a Core Reserve in Pole Creek (Theme 1.3). The south-central portion around St. Charles Peak, although roadless and of general wilderness quality, is recommended for Theme 5.1 Active Management for Wildlife or Theme 3.1 Quiet Use Areas. There are two proposed Research Natural Areas (Theme 2.1). The table below lists the major management units by theme. Refer to the Wet Mountain Complex map for specific locations and refer to the roadless area descriptions above for more details on the unit.

Table 5.23: Wet Mountains Management Recommendations

Name	Acres	Recommended Management
Theme 1 – Natural Processes Dominate		
Greenhorn Wilderness	23,200	1.1 Existing Wilderness
Apache Creek	3,800	1.2 Recommended Wilderness (add to Greenhorn)
Badito Cone	1,500	1.2 Recommended Wilderness (add to Greenhorn)
Bears Head	12,100	1.2 Recommended Wilderness

Name	Acres	Recommended Management
Cisneros Creek	3,500	1.2 Recommended Wilderness (add to Greenhorn)
Greenhorn addn Santana	1,100	1.2 Recommended Wilderness (add to Greenhorn)
Greenhorn Creek	9,100	1.2 Recommended Wilderness (add to Greenhorn)
Greenhorn Mountain South	900	1.2 Recommended Wilderness (add to Greenhorn)
Hardscrabble	8,400	1.2 Recommended Wilderness
Highline	19,700	1.2 Recommended Wilderness
Scraggy Peaks	15,200	1.2 Recommended Wilderness
Lewis Creek	6,800	1.3 Core Reserve
Pole Creek North	4,500	1.3 Core Reserve
Pole Creek South	4,200	1.3 Core Reserve
Theme 2 – Special Areas		
Apache Creek RNA	10,100	2.1 Research Natural Areas
Big Red Butte RNA	4,500	2.1 Research Natural Areas
Theme 3 – Natural Landscapes with Limited Management		
Antelope Mountain	8,000	3.1 Quiet Use Areas
Theme 4 – Recreation Emphasis Areas		
Frontier Pathways Scenic Byway	500	4.2 Scenic Byways
Theme 5 – Active Management		
Badito South	200	5.1 Active Mgmt - Wildlife Habitat
Oak Creek	4,000	5.1 Active Mgmt - Wildlife Habitat
Red Creek	900	5.1 Active Mgmt - Wildlife Habitat
S. Hardscrabble Valley	500	5.1 Active Mgmt - Wildlife Habitat
St Charles North	24,300	5.1 Active Mgmt - Wildlife Habitat
St Charles Williams Creek East	23,300	5.1 Active Mgmt - Wildlife Habitat
Williams Creek	22,600	5.1 Active Mgmt - Wildlife Habitat
Theme 8 – Permanently Developed Areas		
Lake San Isabel	200	8.2 Permanently Developed Areas

Theme 1 – Natural Processes Dominate

Lands in Theme 1 are managed to maintain highly natural conditions and management activities are virtually unnoticeable. They may include Wilderness and 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.

- Greenhorn Mountain Wilderness is in this complex. 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 (north to south) Bears Head, Hardscrabble, Highline, and Scraggy Peaks roadless areas as Wilderness, with Cisneros Creek, Greenhorn Creek, Apache Creek, Greenhorn Mountain South, Badito Cone, and Santana Butte roadless areas as additions to Greenhorn Mountain 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. The following benefits were considered in recommending these areas for Wilderness designation: permanent protection to enhance wildlife habitat and connectivity, protect sources of domestic water, provide for native plant and animal species, and balance motorized, high impact recreation in other parts of the complex with opportunities for quiet, challenging back country recreation. These Wilderness recommendations will also increase the effective protected area of Greenhorn Mountain and add significant areas of low elevations to the Wilderness system.

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

Capability

All of these areas meet the general requirements for Wilderness. They are either larger than 5,000 acres or are contiguous with Greenhorn Mountain Wilderness, have no system roads and the imprints of human activities are substantially unnoticeable. There are excellent opportunities for solitude and challenging back country recreation, and the lower elevations of the northern areas offer four-season recreation.

Availability

To the best of our knowledge, there are no major impediments to designation of the recommended Wilderness areas. There are no immediate projects planned in this complex which would preclude Wilderness designation. Private inholdings are mostly located along the boundaries of the Wilderness areas and are excluded from the areas. There are remnant logging roads in Highline and other areas that should be closed and rehabilitated. Several motorized trails in Scraggy Peaks would need to be converted from motorized use to foot and horse use, and Cisneros Trail (trail 1314) would no longer be available for snowmobile use.

All or parts of Newlin Creek, Red Creek, Rye, Greenhorn, Williams Creek, and Maes Red Canyon grazing allotments would be grandfathered in with Wilderness designation, although over time they should be retired where feasible. There are no known or anticipated impediments to Wilderness designation.

Suitability

Uses forgone in these proposed Wildernesses include some motorized summer and winter use that will be eliminated on the Cisneros Trail and on trails 1325, 1323, 1322, 1387 and 1321 in Scraggy Peaks. However, the major portion of the existing motorized trail system will not be affected. Recommendations for Wilderness will limit or preclude the type of fuels treatments available.

Recreation includes a number of motorized trails within the roadless area: some are recommended for closure and the motorized portion of trail 1384 coming from the west has been cherrystemmed to the picnic area near the National Forest boundary. Pueblo Mountain Park is contiguous with the roadless area on the southeast side, and Mountain Park Environmental Center uses the roadless area for its extensive conservation education programs.

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

- Add significant low elevation ecosystems to the Pike-San Isabel and Region 2 Wilderness System.
- Protect important wildlife habitat for all the species common to these ecosystems, such as Mexican spotted owl (*Strix occidentalis lucida*), greenback cutthroat trout (*Oncorhynchus clarki stomias*), and lynx.
- Enhance the opportunities for challenging and unconfined non-motorized exploration and enjoyment including some four-season backcountry recreation.
- Provide scenic and natural settings in a range of ecosystem types.
- Reduce the fragmentation of landscapes within the Wilderness boundaries by confining motorized recreation to a system of designated trails outside of important wildlife habitat.

Theme 1.3 – Core Reserve

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

Lewis Creek, Pole Creek North, and Pole Creek South, though essentially roadless, did not fully meet Wilderness standards and so are recommended instead for Core designation.

- Lewis Creek area, located between Lewis Creek and North Hardscrabble Creek was split off from the larger Highline roadless area along the Lewis Creek trail in order to leave the trail available for mountain bikes. It has excellent wildlife qualities and provides north-south connectivity between Highline and Hardscrabble, so it is recommended for core designation.
- Pole Creek North and Pole Creek South are two halves of the larger Pole Creek roadless area that was split along the Pole Creek Trail to accommodate the existing motorized recreation. Like Lewis Creek, the wildlife and general habitat integrity justified their recommendation as cores.

Theme 2 – Special Areas

These special areas will protect or enhance a number of important or unusual biological characteristics. Intensity of management will vary based on the area objectives.

Theme 2.1 – Research Natural Areas: Existing and Proposed

Research Natural Areas (RNA) 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, two areas in the Wet Mountain Complex should be added to the RNA system. Each has its unique combination of ecological values which will enhance the system. Both are adjacent to or within designated and proposed Wilderness.

- Apache Creek proposed RNA, about 10,100 acres, spans the central Greenhorn Mountain Wilderness and Apache Creek proposed Wilderness addition. Much of the area is in the designated Wilderness, and use of the area is primarily low use recreational, including hiking, horseback riding, backpacking, and hunting. Rugged terrain has limited human use in the area and allowed it to retain its native character. The area's large size and broad elevation range result in an exceptionally diverse assemblage of plant communities, uninterrupted migration

routes for species using different habitats, and natural functioning of landscape level processes. Piñon-juniper woodlands, subalpine grasslands, alpine tundra, and deciduous riparian, mixed-conifer, ponderosa pine, and spruce-fir forests in the area are in excellent condition. All forest and woodland types have numerous large and potentially very old trees. Engelmann spruce and Douglas-fir from sampled plots were over 200 years old; piñon pine was over 300 years old. There are records of greenback cutthroat trout (*Oncorhynchus clarki stomias*) and Mexican spotted owl (*Hesperia leonardus montana*), federally-listed Threatened species. The state-rare plant, pictureleaf wintergreen (*Pyrola picta*) is found here.

- Big Red Butte proposed RNA of 4,500 acres is located across the southern third of Bears Head proposed Wilderness. Big and Little Red Buttes are prominent landmarks. The CNAP report notes that vegetation at Big Red Buttes is primarily ponderosa pine forest, mixed-conifer forest, and oak shrubland. “The shrublands dominated by Gambel oak and mountain mahogany occur on dry, moderate-to-steep slopes, especially at the eastern and western edges of the potential RNA. Ponderosa pine forests, with a Gambel oak/mountain mahogany-dominated understory, cover ridge tops and shallower slopes in the center of the area. Mixed-conifer forests dominated by Douglas-fir can be found on most north aspects throughout the potential RNA... RNA designation would preserve and provide representation of ponderosa pine forest and Gambel oak shrublands communities (*Pinus ponderosa/Quercus gambelii* and *Quercus gambelii/Cercocarpus montanus*) in good condition.” (Nick Bezzerides and Keldyn West Colorado Natural Areas Program March, 1997). The effects of the Mason Gulch Fire on this area are not known at this time.

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

Antelope Mountain on the Wet Mountain Valley side of the complex is recommended for quiet use recreation. Antelope Mountain, Antelope Park, Breece Creek, and Little Antelope Creek provide a variety of recreation experiences. Quiet use in Antelope Mountain will provide balance to the motorized recreation in other parts of the complex.

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.

Frontier Pathways Scenic and Historic Byway links Pueblo, Westcliffe, and Colorado City via Colorado Highways 96 and 165. Used by Native Americans, trappers, explorers, traders, miners, and farmers, it is of historical interest and takes the visitor across some of the most scenic areas of the Wet Mountains. Bishop’s Castle is a well known landmark on the byway.

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

The St. Charles North, St. Charles Williams Creek East, and Williams Creek areas are located between the Scraggy Peaks and the Greenhorn Creek and Cisneros Creek proposed Wildernesses. Oak Creek is west of the Highline proposed Wilderness. Red Creek is north and South Hardscrabble Valley is south of the Bears Head proposed Wilderness. Badito South is adjacent to the Badito South proposed Wilderness addition.

The St. Charles Peak and Williams Creek East roadless areas falls within the St. Charles Williams Creek East unit, and we strongly recommend that all roadless lands be managed under the provisions of the Roadless Area Conservation Rule with additional guidance from the management objectives and guidelines of this theme. The large St. Charles roadless area has many excellent wilderness qualities, but since it is at higher elevations and contains some motorized trails it was not recommended for Wilderness. For similar reasons, the Williams Creek East area was not recommended for wilderness. See the roadless area description for more details. This management recommendation will protect wildlife values while allowing for continued motorized recreation opportunities in the St. Charles Peak and Williams Creek East vicinity. The active management for wildlife habitat multiple use designation has provisions that will enhance wildlife considerations. Consideration should be given to the sensitive wildlife areas: deer fawning, elk calving, and bighorn sheep lambing areas; winter range for ungulates; locations of rare, endangered, or sensitive species; and accommodation of larger carnivores such as lynx.

Theme 8 – Permanently Developed Areas

These areas are permanently altered by human activities to the extent ecological conditions and landscape appearances are likely outside their natural range of variability. Management emphasis is generally for highly developed recreation sites (ski areas and 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.

Lake San Isabel is a densely developed area for picnicking, access to the St. Charles Trail Head, camping, fishing and domestic water supply. Management will include sustainable camping practices and protection of water quality.

Connectivity

Connectivity within the complex is maintained primarily by the stepping stones of adjacent protected Wilderness areas from north to south, with a gap in strict protection in the St. Charles area. In spite of

heavier recreational use, St. Charles roadless area has many wildlife values and habitat conducive to connectivity. The larger mammals such as deer and elk are found both in the forest and on adjacent private lands, especially to the west in the Wet Mountain Valley. Protecting the public lands will provide more security for these animals for elevational/seasonal movements and dispersal of young animals.

Connectivity to adjacent complexes differs greatly. The Arkansas Canyons complex is immediately adjacent to the northwest, separated only by the Oak Grade Road. The Tanner Peak roadless area, part of the proposed Grape Creek Wilderness, is immediately adjacent across the Oak Grade Road. Linkages to the west across the Wet Mountain Valley to the Sangre de Cristo complex depend on willing landowners, as most of the area is private ranches. Currently, pronghorn, mule deer, and elk use the valley; the San Isabel Foundation is promoting conservation easements; and the Huerfano Habitat Project provides wildlife friendly management to the west.

The 20-25 miles across the intervening private lands between Greenhorn Mountain Wilderness and the next Forest land to the south in the Spanish Peaks complex has the advantage of being generally lower elevation, but also is bisected by the La Veta Pass Highway (US Highway 160). This road is a substantial barrier to wildlife linkages in this north south corridor. It includes a large area of pronghorn habitat and black bear core habitat on non-Forest Service land identified by the Southern Rockies Ecosystem Project.

Connectivity to the eastern foothills and plains is more impacted by development in small towns, the large exurban development at Colorado City and the major barrier of I-25. However, compared to some areas of the Pike-San Isabel National Forest, exurban housing development is not as severe a problem for connectivity, except on the east.

Summary

The Wet Mountains complex provides a rich diversity of low elevation habitat supplemented by higher areas for wildlife, rare plant and animal species, recreation and tourism. Framed by the Wet Mountain Valley and the eastern foothills and plains, they 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.

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