

BLANCA PEAK SPECIAL INTEREST AREA (CULTURAL)

Proposed Designated Area
Rio Grande National Forest
Conejos Peak Ranger District

4,300 acres



General Description

Blanca Peak holds tremendous cultural significance for many of the indigenous cultures in southwest Colorado and the upper Rio Grande valley. Navajo, Ute, Jicarilla Apache, and the Upper Rio Grande Pueblos all place great value on maintaining the pristine integrity of Blanca Peak.

The proposed Blanca Peak Special Interest Area comprises that portion of the massif located on the Rio Grande National Forest. The mountain is under overlapping jurisdictions with other portions administered by the Pike-San Isabel National Forest, the Bureau of Land Management, and the private Trinchera Blanca Ranch.

In addition to its cultural significance, Blanca Peak possesses outstanding recreational and scenic values as well. The Blanca Peak SIA includes three well-known Colorado fourteeners – Blanca Peak, Little Bear Peak, and Ellingwood Point – which attract several thousand mountaineers each year. All are drawn in large part by the dramatic alpine scenery of the high glacial basins and rugged granitic peaks.



The Rio Grande National Forest’s Assessment of Areas of Tribal Importance provides a thorough and compelling summary of Blanca Peak’s cultural significance to regional tribes:

“Mount Blanca, Sierra Blanca or Blanca Peak is sacred to the Navajo, Ute and Jicarilla Tribes. It is also an important anchor point within the cultural landscape of the Upper Rio Grande pueblos, known as *Pintsae’i’i* or “White Mountains” in Tewa. It is of particular significance to the Navajo Tribe, or Dinéh of the American Southwest. To them it is known as *Sisnaajini* or “White Shell Mountain”. The peak marks the eastern boundary of the *Dinetah*, or Navajo homeland. The mountain is considered a living breathing entity. The wetlands (Bureau of Land Management, U.S Fish and Wildlife

Service) and the sand dunes (National Park Service) that flank the mountain are revered as critical components of the life force of the mountain.

The Jicarilla Apache call the mountain *Nishnojini*, “Black Belt” Monster Slayer, *Nío nas ga né*, directed Jicarilla and Navajo peoples on where to go from the top of the mountain and it is thought that the clouds retain spirits that bring the water. The mountain is a place of medicine power.

The Kaputa (Capote) Ute consider the mountain a holy place and call it *Peeroradarath*, “the monster’s back”, “great grandmother serpent” or “dragon’s back”; Blanca Peak as the head and the Sangre de Cristo range to the north, the body. Near the mountain was an old lake, *Aripit*, where Ute ancestors hunted the mastodon and the big buffalo, the *Hooche*.

....

The Historic Preservation Department of the Navajo Nation recommends designating *Sisnaajini* as a Traditional Cultural Property to recognize its cultural significance and to maintain its integrity as a critical component of Navajo cosmology and overall well-being of the Navajo people.” (Rio Grande NF, Assessment 12, Areas of Tribal Importance, 2015)

Recreational and Scenic Values

The Blanca Peak Special Interest Area at its highest point rises almost 7,000 feet above the San Luis Valley. The area’s soaring elevation, precipitous alpine ridges, and secluded glacial valleys and lakes draw mountaineers, hikers, campers, and photographers keen on experiencing unforgettable mountain scenery.

In particular, Blanca Peak, Little Bear Peak, and Ellingwood Point draw thousands of mountaineers annually hoping to reach the summits, test their mountaineering abilities in highly challenging circumstances and enjoy views that can extend to points up to 100 miles away. Little Bear Peak ranks among the most exposed routes to the summit among Colorado’s 54 fourteeners, which enhances the challenge of this primitive recreational pursuit. An estimated 1,000-3,000 climbers attempt Blanca Peak and Ellingwood Point annually, while less than 1,000 pursue Little Bear’s summit (Colorado Fourteeners Initiative, 2015). The Blanca Peak and Ellingwood Point trails from Como Lake were two of only three Fourteener trails in Colorado that received an “A” rating by the Colorado Fourteeners Initiative in 2015. This was due to work completed on these trails in 2011 and 2012.

Boundary, Size, and Access

The proposed Blanca Peak Special Interest Area consists of about 4,300 acres that are adjacent to and outside of the existing Sangre de Cristo Wilderness. The SIA boundary could alternatively

be drawn to also incorporate the entirety of the Blanca Peak massif, including that portion within the designated wilderness area. This would not increase protective management to maintain the pristine character of the mountain, but it would better reflect the intact wholeness of the mountain in recognition of its cultural significance and apply a management obligation to the entire cultural area to protect its special character and purpose. The SIA is bounded to the north and northeast by the Pike-San Isabel National Forest, to the south by the private Trinchera Blanca Ranch managed under a conservation easement held by the U.S. Fish and Wildlife Service, and to the west by BLM lands.

A rough four-wheel-drive road (Forest Road #975) provides motorized access to Lake Como in the center of the area. FR 975 is known as one of the roughest and most challenging, if not the most difficult, 4WD roads in Colorado. There are some who value the road for its challenging nature, and prefer to try to drive a vehicle to its end point. However, the tribes have concerns with oil or other automotive fluid spills, littering, and abandoned car parts desecrating the values for which they hold the area sacred. And, many mountaineers and hikers choose to hike the road because it is too rough.

Proposed Management

Specific management direction is proposed to protect Blanca Peak's unique cultural values, as well as its remarkable recreational and scenic values. These recommendations are based upon desired experiences of visitors wanting to enjoy specific aspects of the SIA (including cultural aspects) that support the stated reasons for the creation of the SIA. These include:

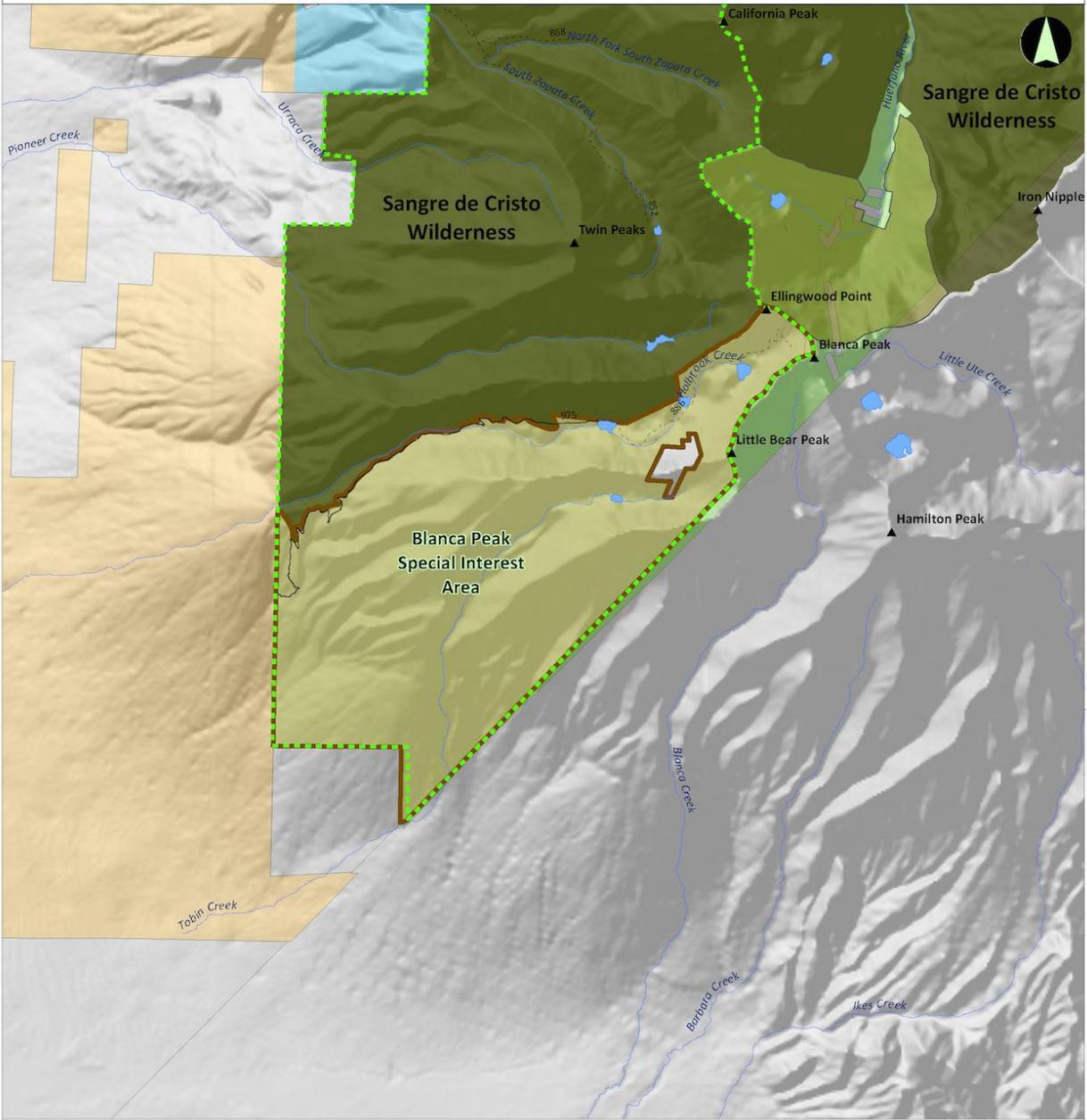
- Make the Blanca Peak SIA administratively unavailable for oil and gas leasing and mineral material sales, and recommend a mineral withdrawal for locatable minerals.
- Management direction must include prohibition on timber harvest and new road construction.
- Restrict motorized and mechanized travel to only the Lake Como access road. Prohibit motorized game retrieval off designated routes. Implement existing travel management designations by installing and enforcing a barrier and signage west of Como Lake to end motorized use at that location.
- Education is recommended for motorized recreationists traveling on the Blanca road to discourage littering, abandonment of broken vehicle parts, and also what type of vehicle and modifications are necessary to safely and responsibly drive on the road. The area should be managed using adaptive management. If monitoring finds more than three examples of oil or other automotive fluid spills, littering, abandoned car parts, or similar left behind each year, additional action will be considered, including permanently closing the road to motor vehicle use.

- Do not allow competitive events on the road or trail, or within the SIA.
- Do not allow communication facilities/infrastructure within this area.
- Monitor the natural soundscape to ensure that noise stays under specified decibel limits (the non-standard motorized vehicles that the road attracts may not be designed to meet sound limits). If necessary, establish specific sound limits to protect the natural soundscape.
- Coordinate closely with the Native American tribes when developing specific management direction that protects and interprets the pristine character of the mountain and determines access to the resources of particular cultural significance.
- Develop an interpretive plan in consultation with the Native American tribes that interprets the area's special character and unique values.

Information Resources

Topic	Data Source
Cultural	Rio Grande NF Assessment 12, Areas of Tribal Importance, 2015
Recreation	Colorado Fourteeners Initiative hiker use estimates, 2015

Blanca Peak Special Interest Area



Data Sources: BLM, CDOT, CPW, SRCA, USFS, USGS, wilderness.net
 Map Prepared By: Alison Gallensky
 Rocky Mountain Wild
 10/5/2016 16-122 v6

Legend

- ▲ Summit
- ▭ Existing Special Interest Area
- ▭ RGNF District
- ▭ City
- ▬ Major Road
- ▬ USFS Road
- ▬ USFS Trail
- ▭ Lake/Pond
- ▬ Stream/River
- ▭ Recommended Designated Area
- ▭ Designated Wilderness
- ▭ Roadless Area

Land Ownership

- ▭ USFS
- ▭ BLM
- ▭ NPS
- ▭ State
- ▭ Other Public
- ▭ Private/Tribe



CHAMA BASIN WATERSHED PROTECTION AREA

Proposed Designated Area
Rio Grande National Forest
Conejos Peak Ranger District

22,900 acres



General Description

Chama Basin is a large, intact roadless area that encompasses the entirety of the Chama River's headwaters not already included within the South San Juan Wilderness. The Chama River is the largest source of municipal water supply for the majority of New Mexico's urban population. Vast tracts of aspen cover much of the basin, and the Rio Chama at its center is a healthy montane riparian forest of willow, cottonwood, and alder.

Chama Basin has been the focus of prior management actions to enhance its value as an intact and undisturbed headwaters watershed. In 2011, the Rio Grande NF completed acquisition of the mineral rights, consolidating surface and mineral estates under federal jurisdiction and thereby assuring compatible management. Chama Basin has previously been evaluated as possessing high potential for oil and gas resources. Federal ownership of the mineral estate allows complete discretion to the Forest Service about future mineral leasing.

Watershed values

The proposed Chama Basin Watershed Protection Area consists primarily of the 21,600-acre Chama Basin Colorado Roadless Area, which is primarily an Upper Tier area. The area is managed for both non-motorized and motorized recreation, and cattle and sheep grazing occurs. The basin is a compact, confined watershed bounded on three sides by high ridges and escarpments, with only a single road providing access to the southern edge of the basin. (USDA Forest Service Colorado Roadless Rule, 2012)



The uppermost headwaters of the East Fork of the Rio Chama are situated in the adjacent, upstream South San Juan Wilderness. The uppermost headwaters of the West Fork arise within the adjacent, upstream Banded Peak Ranch, which is managed compatibly for watershed protection under a conservation easement.

Over 10 miles of streams within Chama Basin have been determined eligible for inclusion with the Wild and Scenic Rivers System. These include both the East Fork and West Fork of the Rio Chama, as well as 5 miles of Archuleta Creek. The streams were categorized under the Scenic classification, even though the entirety of these segments is inaccessible by road. The 4-5 miles of the Rio Chama mainstem should similarly be recognized as eligible for inclusion as a scenic river. (Rio Grande LRMP FEIS, 1996)

Wildlife and Botanical Values

The area sees high use by lynx, a threatened species. Boreal owl and goshawk, two sensitive species, have been documented in the area. Bald eagles use the area in the summer.

The Rio Chama Potential Conservation Area identified by Colorado Natural Heritage Program is entirely contained within the proposed watershed protection area. The Rio Chama PCA is a 191-acre site of High Biodiversity Significance identified for its montane riparian forest. The basin's broad floodplain has large amounts of alluvium, abandoned river channels, and downed logs that create a very dynamic, active riparian system. Biodiversity elements of specific interest include mountain willow (*Salix monticola*)/mesic graminoid montane riparian willow carr, and a narrowleaf cottonwood/thinleaf alder (*Populus angustifolia/Alnus incana*) montane riparian forest. (CHNP Potential Conservation Area Report, 2015)

Boundary, Size, and Access

The proposed Chama Basin Watershed Protection Area is a well-defined and confined watershed. The watershed protection area encompasses 22,900 acres, of which about 21,600 acres is an Upper Tier Colorado Roadless Area. The western rim and eastern rim of the area are the watershed divides. The northern boundary is the national forest boundary or the wilderness boundary, with the uppermost mile or two of the West Fork and East Fork located within adjacent conserved private land (Banded Peak Ranch) or adjacent designated wilderness (South San Juan). The southern boundary is the national forest boundary. Forest Road 121 provides access to the southern, lower reaches of the Rio Chama at the forest boundary. A system of motorized trails (Archuleta Creek and West Fork) and non-motorized trails (Rio Chama and East Fork) provide access to the area's interior.

Proposed Management

Specific management direction is proposed to ensure primacy of watershed protection as follows:

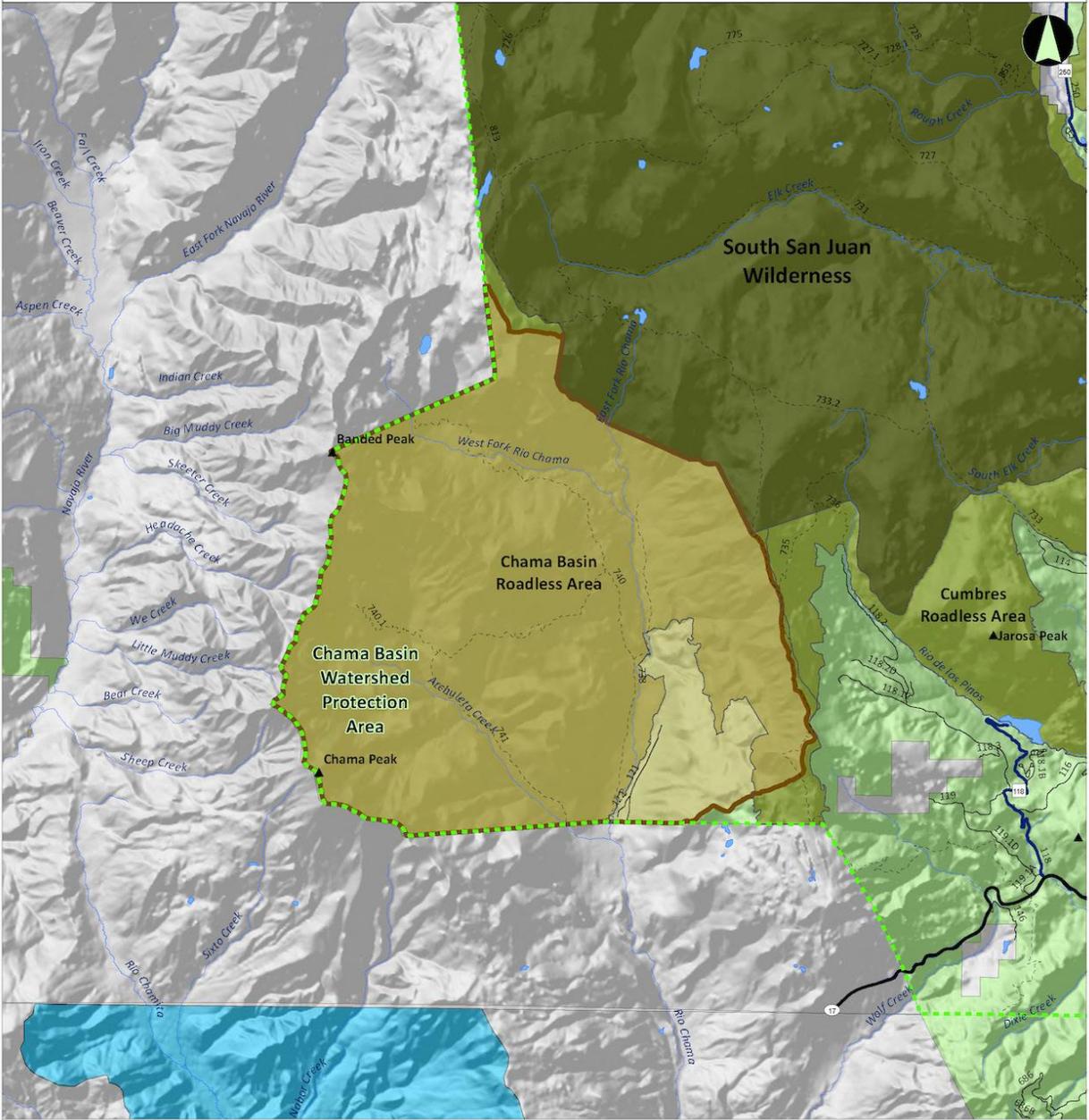
- The Chama Basin Watershed Protection Area must be found unsuitable for oil and gas leasing and mineral material sales, and made discretionary no lease for watershed protection purposes. The area also needs to be withdrawn from mineral entry.

- Management direction must include prohibition on road construction and limitations on tree removal consistent with Upper Tier management prescribed by the Colorado Roadless Rule, 36 CFR Part 294.43(b), 294.42(b).
- Motorized and mechanized vehicle use can only occur on designated routes that are located and managed to minimize impacts to watershed values. Best management practices are in place on all access routes and monitored regularly to ensure effectiveness.
- Eligible Wild and Scenic Rivers must be managed to preserve their eligibility for designation under the Wild and Scenic Rivers Act. Management direction must include no new roads or expanded motorized access, no water impoundments or diversions, no mineral leasing or extraction, and no new surface disturbing activities.
 - The classification of the East Fork of the Rio Chama should be changed to Wild to reflect its condition as a primitive watershed inaccessible by motorized access.
 - The Rio Chama mainstem, from the confluence of the two forks downstream to the national forest boundary, should additionally be identified as an eligible river under the Scenic or Recreational classification.
- Develop an interpretive program for the area that educates visitors on the special character and watershed values of the area.

Information Resources

Topic	Data Source
Biodiversity	CHNP PCA Report, 2015
Roadless area	USDA Forest Service Colorado Roadless Rule, 2012
Wild and Scenic Rivers	Rio Grande LRMP Final EIS, 1996

Chama Basin Watershed Protection Area



Data Sources: BLM, CDOT, CPW, SRCA, USFS, USGS, wilderness.net
 Map Prepared By: Alison Gallensky
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Legend

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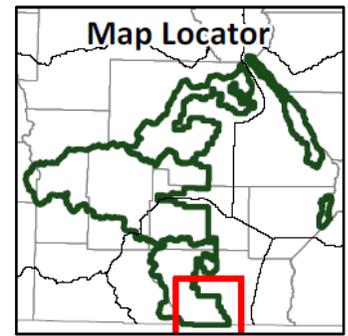
Land Ownership

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- ▭ BLM
- ▭ NPS
- ▭ State
- ▭ Other Public
- ▭ Private/Tribe

SPRUCE HOLE/OSIER/TOLTEC LANDSCAPE CONNECTIVITY ZOOLOGICAL AREA

Proposed Designated Special Interest Area
Rio Grande National Forest
Conejos Peak Ranger District

39,500 acres



General Description

Restoring and maintaining wildlife habitat connectivity within and beyond the National Forest is vital for allowing wildlife to migrate, and recover wide-ranging carnivore populations. Connectivity is especially important in the face of climate change because it enables species that are already stressed to move more easily through the landscape. The proposed corridor provides crucial connected habitat for large game species including mule deer, elk, pronghorn, and Rocky Mountain bighorn sheep as well as large carnivores such as Canada lynx, mountain lions, and black bears. The Rocky Mountain bighorn sheep is a Species of Conservation Concern (SCC), and the Canada lynx is protected as threatened under the U.S. Endangered Species Act. The proposed corridor connects to a similar proposal made by New Mexico citizens to the Carson National Forest and the Rio Grande del Norte National Monument. Through an “all lands” approach to coordination, the Forest Service and partners have a unique and inspiring opportunity to establish a landscape-scale linkage that can benefit wildlife on into the future.

Wildlife Habitat Connectivity Values

The proposed connectivity zoological area is a key movement path for wide-ranging species between southern Colorado and Northern New Mexico. Natural Heritage New Mexico identified this area as the northern reach of the Northern Taos Plateau Wildlife Movement Focal Area that spans through the RGNF, Carson National Forest, and the Rio Grande del Norte National Monument that is managed by the Bureau of Land Management (Muldavin and McCollough 2016). Mule deer and elk migrate through the area, and Rocky Mountain bighorn sheep make seasonal shifts to summering and wintering habitat there.



A newly released Canada lynx explores his new home in the Rio Grande National Forest. © Richard Reading

Protecting remaining intact habitat large enough to allow freedom of movement for these iconic species has never been more important. Habitat loss, deterioration, and fragmentation

have caused Colorado's mule deer population to decline. This is cause for concern, because significant numbers of families, particularly in the local area, rely on the species for food. Disease and habitat loss have put Colorado's bighorn population in jeopardy. Designation of the corridor as Zoological Area would help maintain and restore ecological conditions necessary for bighorn to persist in the Forest and beyond the plan area.

Canada lynx have used this corridor since they were reintroduced by Colorado Parks and Wildlife in 1999. Having an established population of lynx back in Colorado is a source of pride for all wildlife lovers in the state. Protecting linkages for lynx is incredibly important for their long-term viability, and especially now following the large spruce bark beetle outbreak on the forest. Lynx are stressed by climate change, timber harvesting, roads, and winter recreation. Establishing the corridor will reduce some of these stresses on lynx.

Additional Biodiversity Values

Managing the Spruce Hole/Osier/Toltec Landscape Connectivity Zoological Area to maintain and restore habitat connectivity would benefit an array of at-risk and special interest species along with those identified above. Several RGNF SCCs are likely to occur in the area including boreal owl, peregrine falcon, Brewer's sparrow, flammulated owl, golden eagle, olive-sided flycatcher, bald eagle, Rio Grande cutthroat trout, Gunnison's prairie dog, among others, Ripley's milkvetch, slender cliffbreak, Plumber's cliff fern, Colorado divide whitlow grass, and many flowered gilia. The area may provide recovery habitat for federally protected species such as Mexican spotted owl, Southwestern willow flycatcher, yellow-billed cuckoo, and New Mexico meadow jumping mouse. Some of the migratory birds that likely use habitats in the area on a seasonal basis include ferruginous hawks (though some are non-migratory), black swifts, sage sparrows, burrowing owls, Cassin's finches, Grace's warblers, Gray vireos, juniper titmouse, Lewis's woodpeckers, loggerhead shrikes, long-billed curlews, mountain plovers, pinyon jays, and Virginia's warblers.

Three Colorado Natural Heritage Program Potential Conservation Areas (PCAs) overlap with proposed connectivity zoological area. These include the Cascade Creek PCA at Osier and Osier Creek PCA, which were identified for Rio Grande cutthroat trout habitat, and the Rito Hondo Creek PCA, identified for its occurrences of Ripley's milkvetch.

The proposed connectivity zoological area overlaps the Spruce Hole – Sheep Creek Upper Tier Roadless Area which contains over 3,000 additional acres of ecosystems types that are not well represented in the Forest's designated protected areas system. Under-represented ecosystems include grasslands and dry mixed conifer forest (The Wilderness Society, 2016).

Boundary, Size, and Access

The Spruce Hole/Osier/Toltec Landscape Connectivity Zoological Area contains 39,500 acres of the Rio Grande National Forest. It is bounded on the north by the Conejos River as well as Highway 17, which also creates the western boundary. For the purposes here, the southern boundary is the

Colorado-New Mexico state line where the Rio Grande National Forest meets the Carson National Forest. Of course, this political boundary does not demarcate where wildlife movement stops, and a shared management strategy for maintaining and restoring habitat connectivity between the Forests is encouraged.

Proposed Management

The Spruce Hole/Osier/Toltec Landscape Connectivity Zoological Area is proposed for designation in order to enhance landscape-level habitat connectivity for large game and large carnivores, such as Canada lynx. Specific management direction includes:

- Management actions should be driven by the primary need to ensure continued or enhanced habitat connectivity and viability of the zoological area for wildlife movement.
- Activities currently authorized by the agency in this zoological area shall coexist with wildlife movement, migration and dispersal. Changes to current activities and infrastructure may be required if found incompatible with the area's wildlife values.
- Where possible, augment wildlife values through purchase from willing sellers, exchange, transfer or donation of additional acreage of crucial wildlife habitat for their migration, movement and dispersal. Acquired lands are to be managed consistent with the corridor's standards and guidelines.
- Winter, including over-snow vehicle use, and summer recreation activities should conform to best available scientific knowledge for mitigating impacts to at-risk and other sensitive wildlife species.
- Do not authorize new permanent roads within the corridor in order to maintain unfragmented habitat for wildlife migration and dispersal.
- Establish road and motorized trail density standards within the management area to conform to the best scientific recommendations, generally less than one mile per square mile (Lyon 1979; Van Dyke et al. 1986a, b; Fox 1989; Trombulak and Frissell 2000; Reed et al. 1996; Strittholt and DellaSala 2001; Davidson et al. 1996). Ensure that there will be no net increases in densities above a scientific credible threshold. If these densities do not exist today, the Forest Service will develop a strategy to achieve them.
- All temporary roads are removed and the lands and waters on which they were located are restored to natural conditions within one year of the termination of the purpose for which they were established.
- Decommission and reclaim unauthorized routes and unneeded system roads.

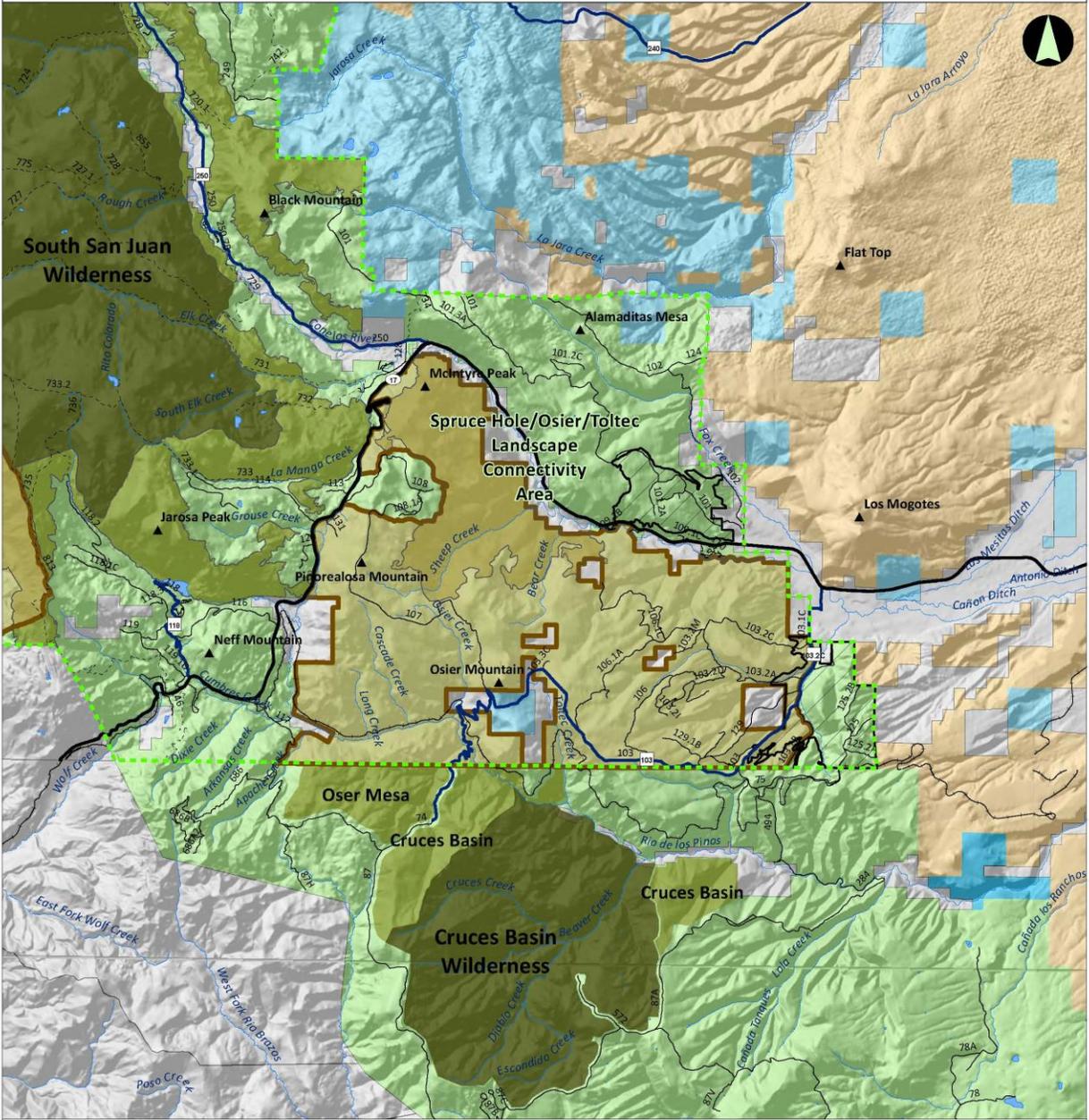
- Establish and implement in a timely manner mitigation standards for existing roads and Highway 17 to facilitate movement of wildlife including a reduction in mortality of wildlife from vehicle collisions (modified from BLM 2012: 2-55). Coordinate with CDOT on planning and projects.
- Limit disturbance footprint resulting from vegetation management activities within the corridor spatially and temporally (e.g., establish maximum width and acres of any one ground disturbance, and limit total acreage of ground disturbance at any one time)
- Minimize fencing for livestock and make all fences wildlife friendly. Coordinate with permittees to identify fencing that is not critical for livestock operations; fencing that is not critical for livestock operations and that is impeding wildlife movement is removed. Any new livestock fencing that is installed should be constructed in a manner that will minimize disruption to wildlife movement, taking into consideration seasonal migration and water resources.
- Preclude the granting of new right-of-ways for energy development that would negatively impact wildlife, their habitat and its connectivity.
- Withdraw the corridor from location and entry under the Mining Law, subject to valid existing rights.
- Access to inholdings must be maintained at no greater than current standards, and reduced or avoided entirely if possible.
- The Connectivity Zoological Area must be discretionary no oil and gas leasing, although there is low likelihood of oil and gas occurrence in this location. It should be withdrawn from mineral entry.

Information Resources

Topic or Data	Data Source
wildlife movement and wildlife connectivity opportunity data	Muldavin, E. and R. McCollough. 2016. Wildlife Doorways: Supporting Wildlife Habitat Connectivity Across Borders in the Upper Rio Grande Watershed. Natural Heritage New Mexico and University of New Mexico. March. Center for Native Ecosystems. 2006. Linking Colorado's Landscapes Species Movement Arrows. https://databasin.org/datasets/16d4904566f7446e99768175af07b1e5 .
Ecosystem representation	The Wilderness Society, 2016. Ecosystem Representation Report. Attached as Appendix 2 to letter submitted by The Wilderness Society et al on September 6, 2016 on the Wilderness evaluation preliminary report.
Wildlife, general	Forest Service. 2016. List of Species of Conservation Concern for the Rio Grande National Forest. Rocky Mountain Region. August 17. NatureServe Explorer: An online encyclopedia of life [web application]. Version 7.1. NatureServe, Arlington, Virginia. http://explorer.natureserve.org . NatureServe Explorer: An online encyclopedia of life [web application]. Version 7.1. NatureServe, Arlington, Virginia. http://explorer.natureserve.org . U.S. Fish and Wildlife Service. Information for Planning and Conservation (IPaC). https://ecos.fws.gov/ipac/ .
CNHP Potential Conservation Areas	Colorado Natural Heritage Program. CNHP Potential Conservation Areas Reports. http://www.cnhp.colostate.edu/download/gis/pca_reports.asp#c .
Colorado human population	Svaldi, Aldo. 2015. Colorado's population jumped by 101,000 in 12 months. Denver Post. June 13: http://www.denverpost.com/2015/12/22/colorados-population-jumped-by-101000-in-12-months-2/ .
mule deer and elk wildlife movement data	Big Game Movement, NM Dept. of Game & Fish Elk Migration Patterns, CO Parks and Wildlife 2014 Mule Deer Migration Patterns, CO Parks and Wildlife 2014 Elk Linkage Modeled Southern, Rockies Ecosystem Project/Center for Native Ecosystems 2009 Colorado Parks and Wildlife. The Story of Colorado's Mule Deer. https://cpw.state.co.us/Documents/MuleDeer/ColoradosMuleDeerStory.pdf .
Rocky Mountain bighorn sheep	Bighorn Overall Range, CO Parks and Wildlife 2014 Bighorn Severe Winter Range, CO Parks and Wildlife 2014 Bighorn Summer Concentration Area, CO Parks and Wildlife 2014
pronghorn	Pronghorn Overall Range, CO Parks and Wildlife 2014
Canada lynx	Lynx Denning and Winter Habitats, SW CO U.S. Forest Service Lynx Habitat Other, SW CO U.S. Forest Service Lynx Potential Habitat, CO Parks and Wildlife 2014 Lynx Linkage Modeled, Southern Rockies Ecosystem Project/Center for Native Ecosystems 2009
mountain lion	Mountain Lion Overall Range, CO Parks and Wildlife 2014
black bear	Black Bear Fall Concentration, CO Parks and Wildlife 2014
wolf	All Species Movement Arrows, Southern Rockies Ecosystem Project
peregrine falcon nesting	Colorado Natural Heritage Program 2014 Colorado Oil and Gas Conservation Commission 2008 Colorado Parks and Wildlife 2014
Gunnison's prairie dog	Gunnison's Prairie Dog Overall Range, CO Parks and Wildlife 2014
Brazilian free-tailed bat	Overall Range, CO Parks and Wildlife 2014
Rio Grande cutthroat trout	Colorado Natural Heritage Program

Route density standards	Davidson, Diane W., William D. Newmark, Jack W. Sites, Jr., Dennis K. Shiozawa, Eric A. Rickart, Kimball T. Harper, and Robert B. Keiter. 1996. Selecting Wilderness Areas to Conserve Utah's Biological Diversity. <i>Great Basin Naturalist</i> 56(2):95-118.
	Forest Service. 2008. Southern Rockies Lynx Management Direction, Final Environmental Impact Statement Volume 1.
	Fox, R.A. 1989. Mule Deer (<i>Odocoileus hemionus</i>) Home Range and Habitat Use in an Energy-Impacted Area of the North Dakota Badlands. Masters Thesis, University of North Dakota. Grand Forks, ND.
	Lyon, L. J. 1979. "Habitat Effectiveness for Elk as Influenced by Roads and Cover." <i>Journal of Forestry</i> , October, 658-660.
	Stritthold, J.R., and D.A. DellaSala. 2001. Importance of Roadless Areas in Biodiversity Conservation in Forested Ecosystems: A Case Study—Kalmath-Siskiyou Ecoregion, U.S.A. <i>Conservation Biology</i> 15(6):1742-1754.
	Trumbulak, S.C., and C.A. Frissell. 2000. Review of Ecological Effects of Roads on Terrestrial and Aquatic Communities. <i>Conservation Biology</i> 14(1):18-26.
	VanDyke, F. G., Brocke, R. H., Shaw, H. G., Ackerman, B. B., Hemker, T. P., and Lindzey, F. G. (1986b). Reactions of Mountain Lions to Logging and Human Activity. <i>Journal of Wildlife Management</i> . 50(1): 95-102.
	VanDyke, F. G., Brocke, R. H., and Shaw, H. G. (1986a). Use of Road Track Counts as Indices of Mountain Lion Presence. <i>Journal of wildlife Management</i> . 50(1):102-109.

Spruce Hole/Osier/Toltec Landscape Connectivity Area

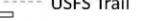
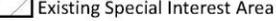
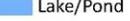
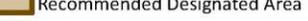
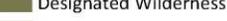
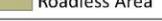




ROCKY MOUNTAIN WILD

Data Sources: BLM, CDOT, CPW, SRCA, USFS, USGS, wilderness.net
Map Prepared By: Alison Gallensky
 Rocky Mountain Wild
 10/20/2016 16-122 v8



- Legend**
-  Summit
 -  RGNF District
 -  City
 -  Major Road
 -  USFS Road
 -  USFS Trail
 -  Railroad
 -  Existing Special Interest Area
 -  Lake/Pond
 -  Stream/River
 -  Recommended Designated Area
 -  Designated Wilderness
 -  Roadless Area

- Land Ownership**
-  USFS
 -  BLM
 -  NPS
 -  State
 -  Other Public
 -  Private/Tribe

SUMMER COON LA VENTANA GEOLOGIC AREA

Proposed Designated Area
Rio Grande National Forest
Divide Ranger District

22,400 acres



General Description

The proposed Summer Coon La Ventana Geologic Area offers a unique opportunity to see well-preserved outcrops representing the earliest evidence of the Rio Grande continental rifting. The proposed area incorporates much of an ancient stratovolcano (a composite layered structure built up from sequential outpourings of eruptive materials), a nearly perfect pattern of radial dikes, and the La Ventana Natural Arch eroded into the center of one of the most prominent dikes. The area includes significant cultural, botanical and ecological values in addition to its notable geological importance.

The Summer Coon La Ventana Geologic Area expands the existing 8,441-acre Elephant Rocks Special Interest Area to incorporate the entirety of the Summer Coon volcanic field, particularly the well-developed radial dikes originating from the area's center. The existing SIA was designated in the prior Forest Plan for a portion of the Summer Coon volcanic features as well as rare botanical features in the form of a Forest Service sensitive species, the rock-loving *Neoparrya*.

The Natural Arch is a traditional cultural property considered sacred to the Ute and Jicarilla Apache. Extension of the SIA to include the La Ventana Natural Arch expands the represented values to include cultural as well as geologic and ecological values. The expanded boundary encompasses lower elevation 8,880-foot ecosystem types representative of the foothills surrounding the San Luis Valley, with grassland, pinyon-juniper and ponderosa pine woodlands transitioning to higher elevation Douglas-fir and aspen at over 11,000 feet.

Geologic and ecological values

Summer Coon is an eroded Oligocene-aged stratovolcano located in the eastern San Juan Mountains of Colorado, on the western edge of the San Luis Valley. It is noteworthy because it marks the beginning of the Rio Grande rift – about 34 million years ago – when rising magma was threatening to pull the continental plate apart. The volcano is tilted slightly; this probably occurred after eruption as the rift



system grew and lifted. The volcano has well developed radial dikes, but no ring dikes. La Ventana is a natural arch eroded into the long, narrow wall of one of the most prominent dikes. The central intrusive complex appears as a group of low hills running north-northwest in the center of the volcano. The hills are surrounded by an approximately circular alluvium-filled valley about two miles in diameter. This volcano is part of a larger volcanic complex in the area that erupted from about 31 million years ago to 22 million years ago and is now represented by a series of calderas.

Erosion has uncovered the former stratovolcano down to its base, revealing a complete basal section of the 8-10 mile diameter cone. A geology driving tour along Saguache County Road A32 provides an educational introduction to readily accessible and interesting stops. (Noblett and Loeffler, 1987), and could be expanded into an engaging interpretive tour for forest visitors.

The Summer Coon La Ventana Geologic Area includes a portion of the Elephant Rocks Potential Conservation Area identified by Colorado Natural Heritage Program. This PCA is a complex of volcanic boulders, rock outcrops, and shrublands separating the prairie of the valley floor from the San Juan Mountains and contains both rare plant and animal species, which results in its rank of High Biodiversity Significance. Specific biodiversity elements present include a medium-sized population of the rock-loving *Neoparrya* – an herb that is restricted to south-central Colorado; a rare milkvetch (*Astragalus cerussatus*) with only 20 known occurrences; and a silky pocket mouse subspecies population found here that is restricted to the San Luis Valley and is rare within its range. (CHNP Potential Conservation Area Report, 2015)

The Eagle Mountain PCA is also located within the proposed Summer Coon La Ventana Geologic Area. The PCA includes the cliffs around Eagle Mountain and Eagle Rock, and is identified as of General Biodiversity Interest because of its nesting habitat for peregrine falcons. (CHNP Potential Conservation Area Report, 2015)

Cultural Values

The Natural Arch is considered sacred to the Jicarilla Apache and Ute people. The Forest Service presently manages it as a traditional cultural property because of significance to the indigenous peoples. The Rio Grande NF's Assessment of Areas of Tribal Importance describes the arch's significance in cultural ceremonies and as a rendezvous location. (Rio Grande NF Assessment 12, 2015)

Boundary, Size, and Access

The proposed Summer Coon La Ventana Geologic Area consists of 22,400 acres, which incorporates the entirety of the existing 8,441-acre Elephant Rocks Special Interest Area. The geologic area is contiguous on the east with a portion of BLM's popular Penitente Canyon Special Recreation Management Area. The geologic area is defined by La Garita Creek on the north, by the national forest boundary on the east and south, and generally by Old Woman Creek or private land along the west. Saguache County road A32 provides access directly to the

interior of the area, and Forest Road #659 leads to the La Ventana Natural Arch. The expanded boundary better captures the geologic, ecological, and cultural features than the previous Elephant Rocks Special Interest Area boundary and is more appropriate for conserving this unique landscape.

Proposed Management

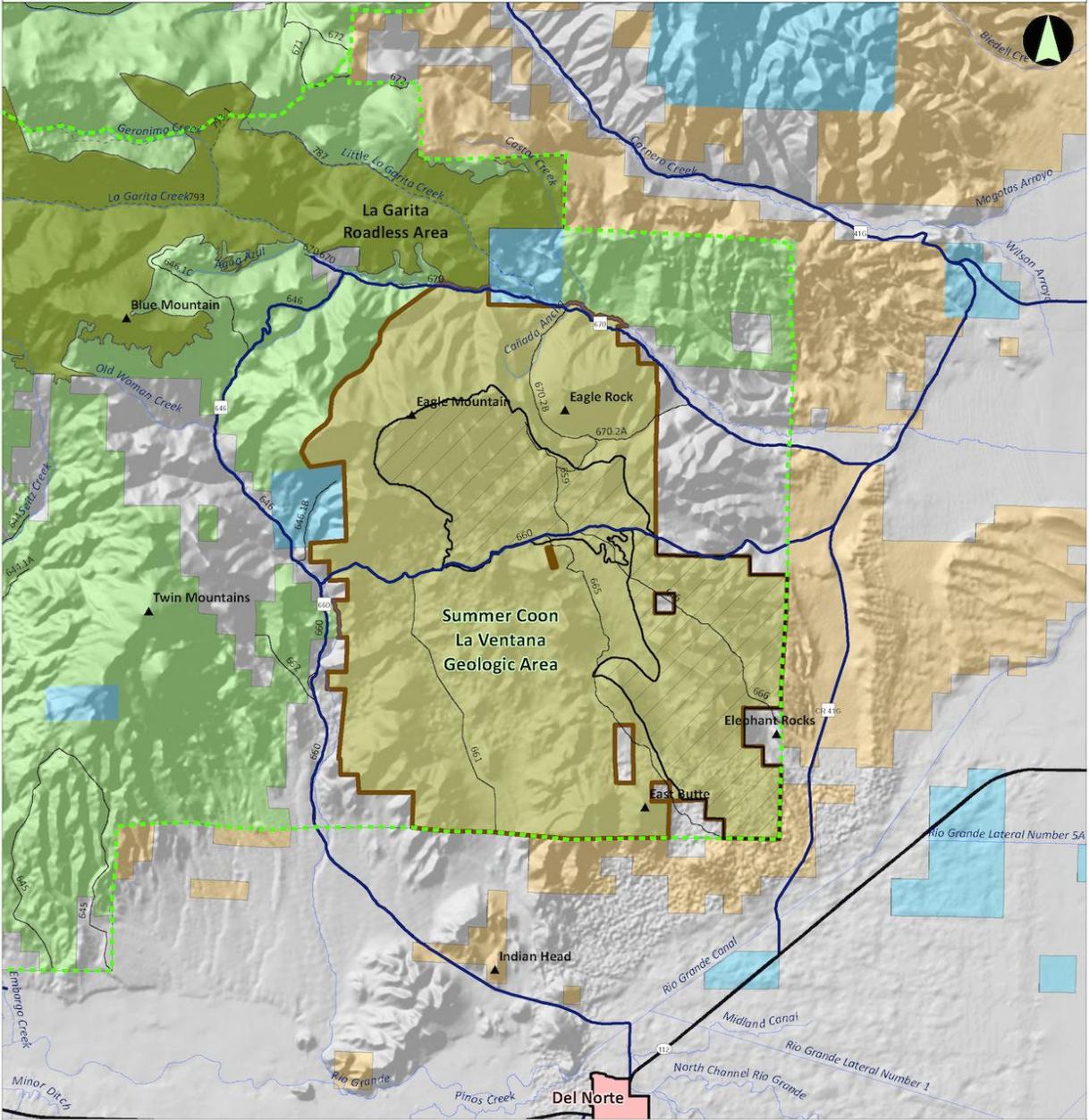
Specific management direction is proposed to protect and interpret the area’s scenic character, botanical and geologic features, and cultural and recreational values. These recommendations are based upon desired experiences of visitors wanting to enjoy specific aspects of the Geologic Area (including cultural aspects) that support the stated reasons for the creation of the area. These include:

- The Summer Coon La Ventana Geologic Area must be administratively unavailable for oil and gas leasing and mineral material sales, and a mineral withdrawal needs to be recommended for locatable minerals.
- Management direction must include prohibition on timber harvest and new road construction.
- Motorized and mechanized travel must be restricted to designated routes and motorized game retrieval off designated routes must be prohibited.
- The Forest Service should develop an interpretive program for the area that at a minimum includes and interpretive driving tour that teaches about the area’s unique and special qualities. The Forest Service should consider developing non-motorized interpretive trails as well. Interpretation of cultural values should be done in close cooperation with Native American tribes.
- Prohibit rock climbing on the dike on which the arch is located to protect cultural values.

Information Resources

Topic	Data Source
Geology	Noblett & Loeffler, Summer Coon Volcano Geology, Colorado College, 1987
Cultural	Rio Grande NF Assessment 12, Areas of Tribal Importance, 2015
Biodiversity	CHNP PCA Reports, 2015

Summer Coon La Ventana Geologic Area



Data Sources: BLM, CDOT, CPW, SRCA, USFS, USGS, wilderness.net
 Map Prepared By: Alison Gallensky
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0 1 2 Miles

Legend

- ▲ Summit
- ▭ Existing Special Interest Area
- ▭ RGNF District
- ▭ Lake/Pond
- ▭ City
- ▭ Stream/River
- ▭ Major Road
- ▭ USFS Road
- ▭ USFS Trail
- ▭ Recommended Designated Area
- ▭ Designated Wilderness
- ▭ Roadless Area

Land Ownership

- ▭ USFS
- ▭ BLM
- ▭ NPS
- ▭ State
- ▭ Other Public
- ▭ Private/Tribe

WOLF CREEK PASS LINKAGE LANDSCAPE ZOOLOGICAL AREA

Proposed Designated Area
Rio Grande National Forest
Divide Ranger District

22,300 acres

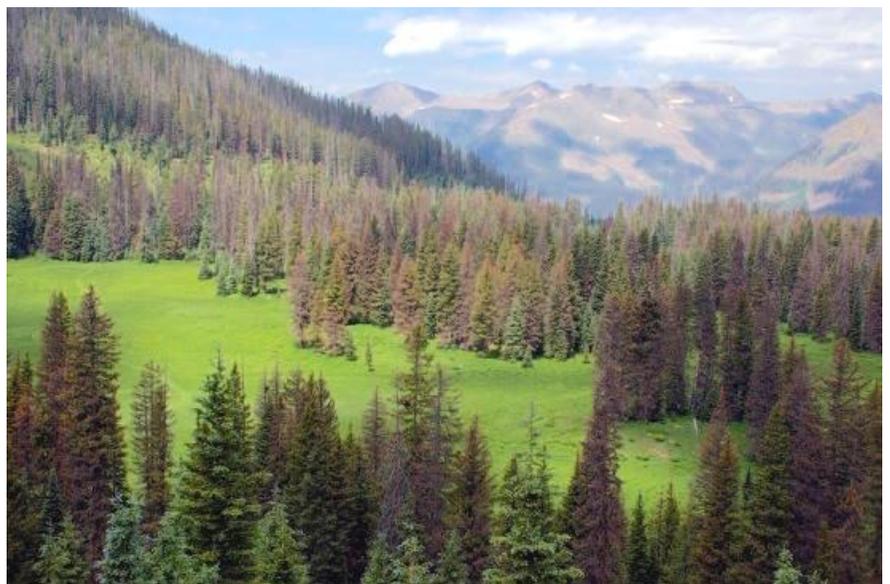


General Description

The Wolf Creek Pass Linkage Zoological Area is the most important wildlife linkage zone in the San Juan Mountains. It is situated in the very heart of the San Juan Core Area for lynx, which comprises the core reintroduction area and the most expansive lynx habitat in the Southern Rockies. The Wolf Creek Pass linkage has been frequently utilized by lynx, and presumably may be important for other species such as pine marten, boreal owl, and wolverine in the future.

The proposed Zoological Area includes the most complex management landscape on the Rio Grande National Forest. Much of the area has experienced severe mortality from spruce beetle, and the largest wildfires in the recent history of the San Juan Mountains have occurred in close proximity. The linkage area includes designated wilderness, Colorado Roadless Areas, and the Continental Divide National Scenic Trail, but it also incorporates a permitted ski area, a busy highway corridor, private inholdings, water impoundments, high recreation use both winter and summer, and past and present timber harvests. Moreover, the viability of the linkage area will be tested in the future by rapidly changing habitat conditions. The combination of spruce beetle epidemic, large intense wildfires, and climate change will impose new stresses in this area.

A Zoological Area designation will focus the needed management attention on this crucial landscape for wildlife and landscape connectivity and emphasize the priority of juggling many competing human activities in order to preserve the viability of the linkage. The area was originally identified in the Southern Rockies Lynx Management Direction as a “lynx linkage area,” which are “areas of movement opportunity” and “can be maintained or lost by management activities.” (Forest Service 2008 at Appendix D)



Linkage values

The Forest Service has previously succinctly defined the critical significance to lynx of the Wolf Creek Pass linkage:

Lynx are heavily using the Wolf Creek Pass Lynx Linkage area as a dispersal corridor and the viability of this linkage is important to the recovery of lynx in Colorado. The linkage spans a forested swath over the Continental Divide between large blocks of highly effective subalpine habitat. Lynx denning and established home ranges have been identified to the north and south of the Wolf Creek Pass Lynx Linkage. The linkage is part of the Colorado Division of Wildlife's "Core Research Area" in the San Juan Mountains, recognized as the largest continuous block of high quality lynx habitat in the state and where the CDOW focused their 10-year lynx monitoring and research efforts. (Village at Wolf Creek FEIS, 2014)

Managers concur that maintaining landscape-level habitat connectivity may be paramount to maintaining a viable population because of the patchy, discontinuous distribution of lynx habitat in the Southern Rockies Ecosystem. For that reason, landscape linkages must be available to allow lynx movements between adjacent mountain ranges. Linkage areas are areas of movement opportunities. They exist on the landscape and can be maintained or lost by management activities or developments. (Village at Wolf Creek FEIS 2014; Southern Rockies Lynx Amendment 2008)

The Wolf Creek Pass Linkage Zoological Area includes significant portions of two Colorado Roadless Areas, both managed as Upper Tier. A portion of the Trout Mountain-Elk Mountain roadless area is located immediately north of Highway 160, and the western half of the Fox Mountain roadless area is incorporated within the southern half of the linkage area.

The Continental Divide National Scenic Trail corridor defines the southern border of the linkage area. The trail corridor is managed to provide high-quality scenic, primitive hiking and equestrian opportunities. (Forest Service Manual 2350, 2009)

Two Potential Conservation Areas identified by the Colorado Natural Heritage Program are located largely within the Wolf Creek Pass Landscape Linkage Special Interest Area boundary. The Haven of the Reflected Moonwort PCA is in the subalpine zone near the Continental Divide. It is ranked as High Biodiversity Significance for its occurrences of the moonwort family. The Pass Creek at South Fork Rio Grande PCA is ranked as a Moderate Biodiversity Significance site owing to an historic Rio Grande cutthroat trout population. (CHNP PCA Reports, 2015)

Boundary, Size, and Access

The proposed Wolf Creek Pass Linkage Zoological Area is bounded on either side of Highway 160 eastern approach to Wolf Creek Pass by major watershed and topographic divides. It includes about 22,300 acres on the Rio Grande National Forest, and there are additional lands

on the adjacent San Juan National Forest.

Proposed Management

The Wolf Creek Pass Linkage Zoological Area is proposed for designation in order to ensure its conservation as a landscape-level habitat connectivity for lynx and other wildlife. Specific management direction includes:

- Management actions must be driven by the primary need to ensure continued or enhanced habitat connectivity and viability of the linkage area for wildlife movement.
- The Wolf Creek Pass Linkage Zoological Area must be discretionary no oil and gas leasing, although there is low likelihood of oil and gas occurrence in this location. It should be withdrawn from mineral entry.
- Management direction must include prohibition on road construction and limitations on tree removal for the two roadless areas consistent with Upper Tier management prescribed by the Colorado Roadless Rule, 36 CFR Part 294 Subpart D.
- Do not authorize new permanent roads within the corridor in order to maintain unfragmented habitat for wildlife migration and dispersal.
- Decommission and reclaim unauthorized routes and unneeded system roads.
- Establish road and motorized trail density standards within the management area to conform to the best scientific recommendations, generally less than one mile per square mile (Lyon 1979; Van Dyke et al. 1986a, b; Fox 1989; Trombulak and Frissell 2000; Reed et al. 1996; Strittholt and DellaSala 2001; Davidson et al. 1996). Ensure that there will be no net increases in densities above a scientific credible threshold. If these densities do not exist today, the Forest Service will develop a strategy to achieve them.
- All temporary roads are removed and the lands and waters on which they were located are restored to natural conditions within one year of the termination of the purpose for which they were established.
- Establish and implement in a timely manner mitigation standards for existing roads and Highway 160 to facilitate movement of wildlife including a reduction in mortality of wildlife from vehicle collisions (modified from BLM 2012:2-55). Coordinate with CDOT on planning and projects.
- Limit disturbance footprint resulting from vegetation management activities within the corridor spatially and temporally (e.g., establish maximum width and acres of any one ground disturbance, and limit total acreage of ground disturbance at any one time)

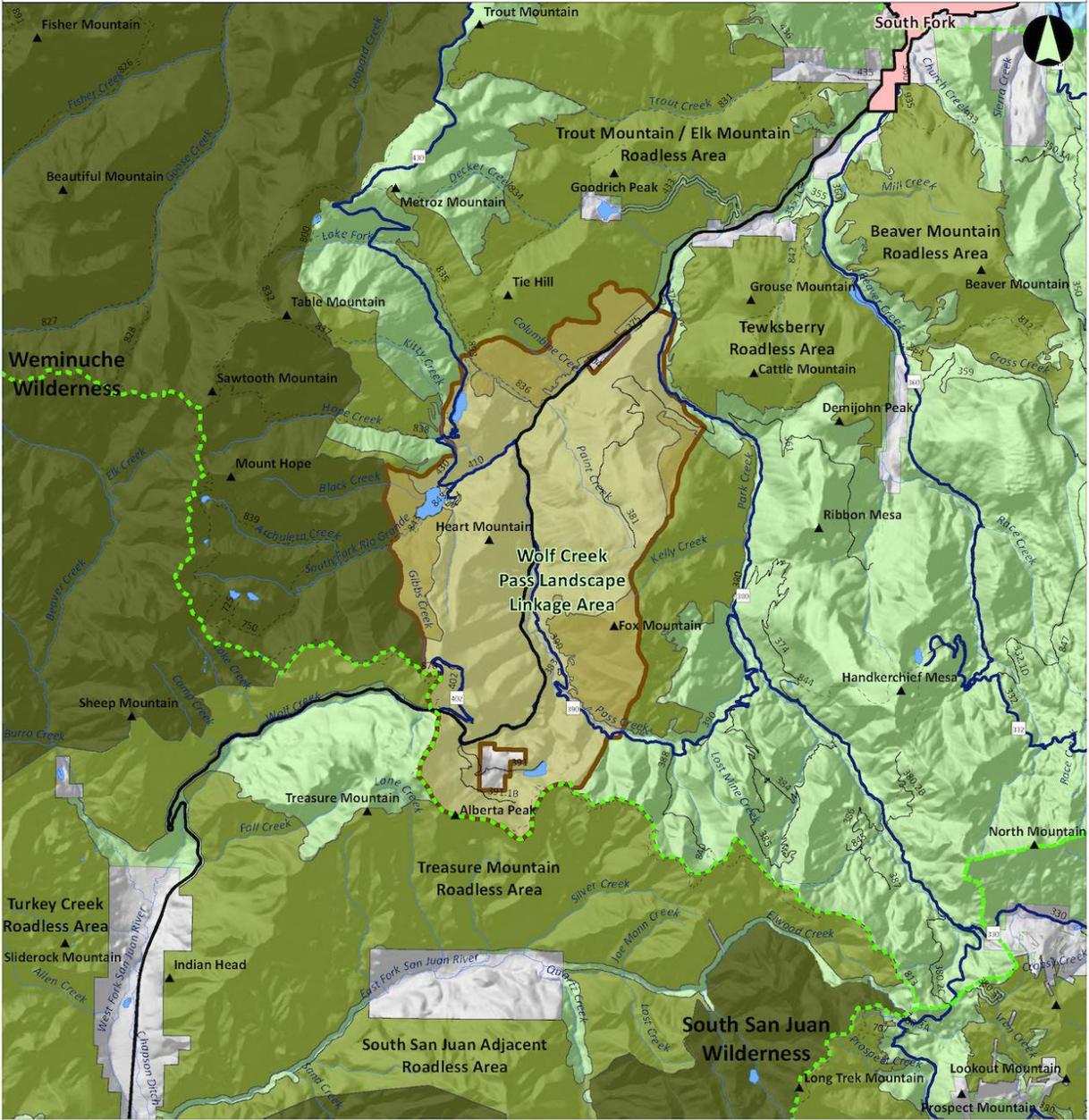
- Winter and summer recreation activities must conform to best available scientific knowledge for mitigating impacts to lynx and other sensitive wildlife species, and, if necessary be limited spatially and/or temporally.
- Changes in operation or permit boundaries of Wolf Creek Ski Area must be designed to avoid new impacts to use of linkage corridor.
- Access to inholdings and new recreation developments must be maintained at no greater than current standards, and reduced or avoided entirely if possible.
- Coordinate with grazing permittees to identify fencing that is not critical for livestock operations. Fencing that is not critical for livestock operations and that is impeding wildlife movement is removed. Any new livestock fencing that is installed should be constructed in a manner that will minimize disruption to wildlife movement, taking into consideration seasonal migration and water resources.

Information Resources

Topic	Data Source
Lynx	Village at Wolf Creek FEIS, 2014
Biodiversity	CHNP PCA Report, 2015
Roadless area	USDA Forest Service Colorado Roadless Rule, 2012
Wildlife crossings	Bureau of Land Management. 2012a [BLM]. Lower Sonoran and Sonoran National Monument Proposed Resource Management Plan and Final Environmental Statement. June 2012. https://www.blm.gov/epl-front-office/eplanning/planAndProjectSite.do?methodName=dispatchToPatternPage&currentPageId=21457 . Accessed 04/11/2016.
Route density standards	Davidson, Diane W., William D. Newmark, Jack W. Sites, Jr., Dennis K. Shiozawa, Eric A. Rickart, Kimball T. Harper, and Robert B. Keiter. 1996. Selecting Wilderness Areas to Conserve Utah's Biological Diversity. <i>Great Basin Naturalist</i> 56(2):95-118.
	Forest Service. 2008. Southern Rockies Lynx Management Direction, Final Environmental Impact Statement Volume 1.
	Fox, R.A. 1989. Mule Deer (<i>Odocoileus hemionus</i>) Home Range and Habitat Use in an Energy-Impacted Area of the North Dakota Badlands. Masters Thesis, University of North Dakota. Grand Forks, ND.
	Lyon, L. J. 1979. "Habitat Effectiveness for Elk as Influenced by Roads and Cover." <i>Journal of Forestry</i> , October, 658-660.
	Stritthold, J.R., and D.A. DellaSala. 2001. Importance of Roadless Areas in Biodiversity Conservation in Forested Ecosystems: A Case Study—Kalmath-Siskiyou Ecoregion, U.S.A. <i>Conservation Biology</i> 15(6):1742-1754.
	Trumbulak, S.C., and C.A. Frissell. 2000. Review of Ecological Effects of Roads on Terrestrial and Aquatic Communities. <i>Conservation Biology</i> 14(1):18-26.
	VanDyke, F. G., Brocke, R. H., Shaw, H. G., Ackerman, B. B., Hemker, T. P., and Lindzey, F. G. (1986b). Reactions of Mountain Lions to Logging and Human Activity. <i>Journal of Wildlife</i>

	<i>Management</i> . 50(1): 95-102.
	VanDyke, F. G., Brocke, R. H., and Shaw, H. G. (1986a). Use of Road Track Counts as Indices of Mountain Lion Presence. <i>Journal of wildlife Management</i> . 50(1):102-109.

Wolf Creek Pass Landscape Linkage Area



Data Sources: BLM, CDOT, CPW, SRCA, USFS, USGS, wilderness.net
 Map Prepared By: Alison Gallensky
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Legend

- ▲ Summit
- City
- Major Road
- USFS Road
- USFS Trail
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