Citizens' Conservation Proposal: Cibola National Forest Land and Resource Management Plan Revision

Cibola National Forest, Magdalena Mountains
Credit: Mason Cummings, The Wilderness Society

San Agustin Plains from the San Mateo Mountains in the Cibola National Forest.

Cibola National Forest, San Mateo Mountains in the background.

Cibola National Forest, San Mateo Mountains
Credit: Mason Cummings, TWS

Albuquerque Wildlife Federation * Backcountry Horsemen of New Mexico Cottonwood Gulch Foundation * Doña Ana County Associated Sportsmen * Great Old Broads for Wilderness * National Trust for Historic Preservation * National Wildlife Federation * New Mexico Archaeological Council New Mexico Backcountry Hunters and Anglers * New Mexico Mountain Club * New Mexico Sportsmen * New Mexico Wilderness Alliance * New Mexico Wildlife Federation * Sierra Club * The Wilderness Society * Wild Turkey Sportsmen Association

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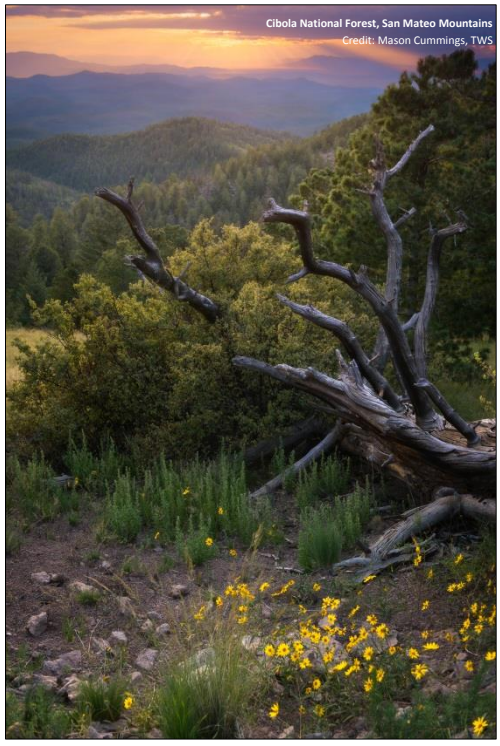
I. Proposal Introduction and Summary

The Cibola National Forest is comprised of four "sky island" mountainous ranger districts that span across central New Mexico and total approximately 1.64 million acres. The Cibola's mountain districts rise from the desert plains offering soaring vistas. These lands are ecologically diverse and geologically unique. Many of the mountain ranges, including the San Mateos, Magdalenas, Datils, Bears, Mt. Taylors, and Sandias are rugged, remote, and wild and offer incredible opportunities for unconfined, primitive recreation. The landscape has a rich history of indigenous peoples, Spanish explorers, pioneers, outlaws and the settlement of the West. Many of the roadless lands on the Cibola's mountain islands border undeveloped wild lands managed by the BLM, including a handful of wilderness study areas and lands with wilderness characteristics. Together, the adjacency of these national forest and BLM lands makes an inter-connected network of wilderness quality lands. This landscape holds the potential to conserve some of New Mexico's most outstanding wilderness, wildlife and traditional way of life. As energy development, uranium mining, motorized recreation, and population steadily increase in New Mexico, the need to protect our wildest public lands has never been more important.

The Forest Service initiated the forest plan revision process for the Cibola National Forest in 2012. This process requires the agency to inventory, evaluate, and consider lands for inclusion in the National Wilderness Preservation System. 36 C.F.R. § 219.7(c)(2)(v). Forest Service Handbook 1909.12-Chapter 70 guides the Forest Service on how to inventory, evaluate, and analyze lands that may be suitable for inclusion in the National Wilderness Preservation System and determine whether to recommend any such lands for wilderness designation.

We inventoried lands with wilderness characteristics in the Magdalena Ranger District and northeast corner of the Mt. Taylor Ranger District throughout the summers of 2012-2014, guided by the agency's draft directives that were available at the time. We completed a field inventory of more than a quarter million acres of lands with wilderness characteristics, using the criteria set forth in the Wilderness Act and incorporated into the Forest Service's inventory and evaluation manual – size, roads and other substantially noticeable improvements, apparent naturalness, outstanding opportunities for solitude or a primitive and unconfined recreation, and manageability. We also documented, in hundreds of geo-tagged photos and detailed field notes, boundary roads and other routes, other infrastructure and conditions on the ground, and supplemental values, such as ecological significance, that demonstrate the importance of managing specific areas for protection and conservation. The areas identified in our proposal do not represent the only lands in the CNF that are


Cibola National Forest, San Mateo Mountains
Credit: Mason Cummings, TWS

appropriate inclusions in NWPS. Rather, the seven proposed recommended wilderness areas detailed in this conservation proposal represent only the lands that could be thoroughly assessed with available resources.

The lands described in this proposal meet the Forest Service's criteria for lands that are suitable for wilderness designation, and that deserve protection from activities and uses that would degrade their wilderness values. We urge the Forest Service to protect these areas by recommending them for wilderness in order to conserve the exceptional wilderness experiences they provide.

II. Proposal Overview and Context

In this section we provide background information and context for our conservation proposal. We start by providing an overview of the ecology, cultural significance, and human history of the Cibola region. We then highlight opportunities for conserving wilderness characteristics within and across federal public land boundaries, namely between the Cibola National Forest and adjacent BLM lands. Lastly, we explain the methodologies used for developing our conservation proposal, including identifying roadless areas, wilderness quality lands, and active or pending mineral claims.

A. Ecological Overview of the Proposal Area

New Mexico is the fifth largest state covering nearly 121,700 square miles. While there are over a hundred individually named mountain ranges, the state is largely divided by highlands and two large chains of mountain ranges that stretch along a north-south orientation. In northern New Mexico, the southern part of the Rocky Mountains fork into these two ranges, with one spine running along the western edge and the other running down the central part of the state. Runoff from the westerly range combines to form the Rio Grande River while the runoff from the eastern slopes of the eastern range forms the San Jose River.

The size, topography, and physical location of New Mexico combine to make it one of the more biologically diverse states, with more than 4,500 different species of plants and animals (New Mexico Department of Game and Fish, 2006). Of the 1,100 animal species, 500 are birds, 184 are mammals, 26 are amphibians, and 100 are reptiles. In addition, there are numerous invertebrate molluscs, crustraceans and arthropods (New Mexico Department of Game and Fish, 2006).


Old alligator juniper in the Cibola National Forest, San Mateo Mountains

Approximately 21 percent of the state, or about 16.7 million acres, is forest land. These forests, which are comprised mainly of pinyon-juniper, pure juniper, and ponderosa pines are found in the more mountainous regions (O'Brien, 2003). Forty-eight percent of the forest land is administered by the Forest Service. Only about 10 percent of the forest land in New Mexico is

reserved from being utilized for wood products (O'Brien, 2003).

The Cibola National Forest's four mountainous ranger districts – Sandia, Mount Taylor, Mountainair, and Magdalena – are island units spread widely across the western portion of the state. It is in this area where the Colorado Plateau Province to the north transitions to the Basin and Range Province to the east and south. (Appendix A: Map 2) In this transition zone, called the Datil-Mogollon Section, southern and northern life zones meet accentuating the area's ecological diversity (Julyan, 2006).[1] Within this vast and sparsely populated region are habitats ranging from desert and riparian to high-elevation, moist-temperate conifers (*Ibid*, 2006). Within the Datil-Mogollon Section of the Colorado Plateau lies the Plains of San Agustin, a basin that was created by an ancient Pleistocene lake. There are four major "mountain islands" rising from the eastern portion of the Plains of San Augustine. The northerly islands are the jagged Datils and the low-profile Bears, while the San Mateos and the Magdalenas are the southerly islands. Wide-spread volcanism created almost all of the region's "sky islands."

Looking at this area using Bailey's ecoregional approach (1995), these four mountain ranges as well as the Mt. Taylor Mountains to the north are in the Dry Domain-Tropical/Subtropical Regime Mountains Division.[2] There are 32.1 million total acres of Tropical/Subtropical Regime Mountains ecosystem type in the United States of which 1.3 million acres (or only about 4 percent) are protected as wilderness. A subdivision of the Tropical/Subtropical Regime Mountains Division is the Arizona-New Mexico Mountains Ecoregion, which is the ecosystem province within which our proposal rests (Appendix A: Map 3). While the mountains in the area are typically dry, with little surface water on the highly porous volcanic rocks and soil, the mountains in this ecoregion contain the headwaters for a number of important streams and rivers including the Little Colorado, the Gila, the Mimbres, and the Verde (The Nature Conservancy, 1999).

The Arizona-New Mexico Mountains Ecoregion, within which the Cibola 'sky islands' are located, is ecologically rich. This ecoregion hosts more species of birds and mammals than any other ecoregion in the Southwest. It is home to more than 200 rare plants and animals, of which more than 30 are listed as endangered or threatened by the federal or state governments (The Nature Conservancy, 2009). New Mexico Department of Game and Fish (NMDGF), in its Comprehensive Wildlife


Credit: USFWS

[1] Physiographic regions are broad-scale subdivisions based on terrain texture, rock type, and geologic structure and history.
[2] Bailey (1995) produced a widely accepted system for differentiating ecosystems from regional to local scales. In his work, land areas are classified into domains, divisions, provinces, and sections. The groupings reflect similarities in ecological processes, vegetation, climate, and groups of species where ecosystems recur in predictable patterns.

Conservation Strategy (New Mexico Game and Fish Department, 2006), identified 80 species of greatest conservation need (SGCN)[3] in the Arizona-New Mexico Ecoregion, ranking it the second out of six ecoregions in the state for SGCN (See Appendix A: Map 3).[4] Similarly, it identified 53 SGCN in the Rio Grande Watershed, which contains the Cibola National Forest's four mountain districts, ranking it second out of eight watershed regions for SGCN.[5]

Menke (2008) found that the Cibola National Forest is likely to offer quality cougar habitat, and, by extension, quality habitat for a number of wide-ranging carnivores. Top-down predation is an important element in naturally functioning ecosystems (Miller et al., 2001; Terborgh et al., 1999). Menke modeled suitable cougar habitat under contract to the New Mexico's Departments of Transportation and Game and Fish to assist both departments with implementing key wildlife strategies, initiatives, and plans. The analysis focused on cougars for several reasons: 1) cougars have been identified as a species of conservation concern in both regional conservation plans and the New Mexico Comprehensive Wildlife Conservation Strategy; 2) this is the only wide ranging species for which adequate habitat data existed to conduct such an analysis; and 3) it was assumed that cougar could serve as a surrogate for other wide ranging carnivorous species such as marten (*Martes americana*), gray wolf (*Canis lupus*), jaguar (*Panthera onca*), swift fox (*Vulpes velox*) and kit fox (*Vulpes macrotis*) where habitat overlaps. His model shows considerable overlap between our proposed recommended wilderness areas on the Cibola National Forest and quality cougar habitat and movement corridors (Appendix A: Maps 9.1 and 9.2).


Credit: USFWS

The NMDGF conducted a modeling exercise, labeled the Crucial Habitat Assessment Tool (NM CHAT), to identify crucial habitat across the state. The NM CHAT produced a web-based map tool with spatial information on the conservation of animals, plants, and their habitats across New Mexico. It is designed to aid landscape-level planning and is intended for industry, natural resources managers, conservation practitioners, and the public to identify priority habitat. The CHAT is a collaboration between NMDGF, Natural Heritage New Mexico, and the Museum of Southwestern Biology at the University of New Mexico. The CHAT is also part of a West-wide effort by the Western Governors' Association Wildlife Council to map crucial habitat across 16 states using

[3] SGCN are species with small or declining populations or other characteristics that make them vulnerable, including those currently listed at the state or federal level.

[4] Of the 80 SGCN in the Arizona-New Mexico Ecoregion, there are 4 amphibians, 35 birds, 16 mammals, 15 molluscs, and 10 reptiles.

[5] Of the 53 SGCN in the Rio Grande Watershed, there are 2 crustaceans, 11 fish, 6 amphibians, 18 birds, 6 mammals, 7 molluscs, and 3 reptiles.

consistent methodologies. Map 5 in Appendix A shows that our proposal areas overlap with priority habitat identified by NMDGF's CHAT model.

In the last decade, The Nature Conservancy (TNC) completed an ecological assessment of the eleven national forests in the southwestern region (Region 3) of the Forest Service in order to help the agency evaluate biological and ecological diversity in the forest planning process. TNC utilized four existing landscape-level ecological assessments to identify and summarize important biological values that exist on Region 3 forests (The Nature Conservancy, 2004). One of the four assessments used was their own eco-regional assessment process (The Nature Conservancy, 1999) in which TNC identifies the minimum set of conservation areas on the landscape that are necessary to maintain the biological diversity of the larger ecoregion.[6]

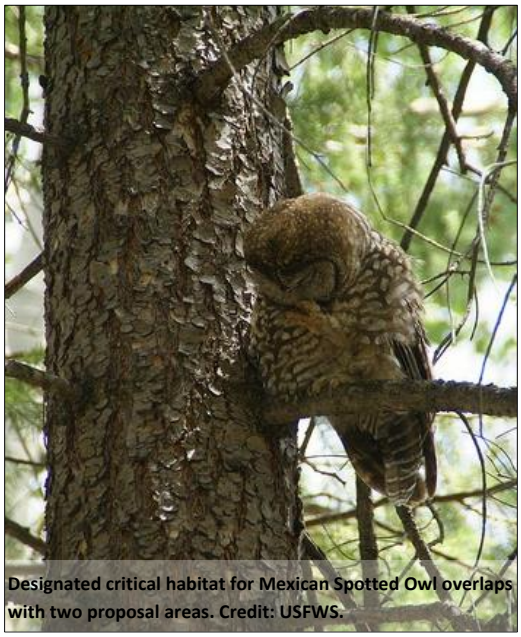
TNC's analysis for the ecoregion that includes the highlands of eastern Arizona and western and central New Mexico found that the Cibola National Forest has the largest proportion of overlap with TNC-recommended conservation areas of all National Forests within Region 3 (see Map 2).[7] Seven TNC-recommended conservation areas overlap to some extent with the Cibola National Forest. The total acreage of the overlap is 703,100 acres, or 33% of the forest. These seven conservation areas focus on 39 conservation targets, including 27 individual species. In particular, TNC identified the San Mateo, Magdalena, and Datil Mountains on the Magdalena Ranger District as key conservation areas because of their ecological diversity (The Nature Conservancy, 2004).

The specific locations where conservation areas overlap the Cibola highlight important places for potential conservation of ecosystem and species diversity on the National Forest and within the region. Approximately two-thirds (66%) of the portion of the Cibola National Forest that is overlapped by TNC-recommended conservation areas do not have a specific land use designation (i.e., Wilderness or Inventoried Roadless Area) that would securely protect the conservation target.[8] This argues that achieving biodiversity on the Cibola National Forest most likely will not be accomplished entirely within existing designated areas, and that there exists a need and opportunity to designate additional areas to sustain biodiversity on the forest. To this end, there is significant overlap between TNC key conservation areas and our proposal units on the Magdalena Ranger District (see Appendix A: Maps 8.1 and 8. 2).

Undeveloped natural lands provide numerous ecological benefits. They contribute to biodiversity, enhance ecosystem representation, and facilitate connectivity (Loucks et al., 2003; USDA, 2001; Crist and Wilmer, 2002; Wilcove, 1990; The Wilderness Society, 2004; Strittholt and Dellasala, 2001; DeVelice and Martin, 2001), and provide high quality or undisturbed water, soil and air (Anderson et al., 2012; Dellasalla et al., 2011).

[6] TNC's methodology for identifying key conservation areas in the Cibola National Forest is covered in Chapters 2 and 10 in their report entitled "Ecological and Biological Diversity of National Forests in Region 3" (The Nature Conservancy, 2004).
[7] See Appendix B for detailed information about TNC's ecological assessment, including their methodology.
[8] About 19.5 percent of the overlap area is in an Inventoried Roadless Area and 14.3 percent is Wilderness Area.

Forest Service roadless lands, in particular, are heralded for the conservation values they provide. These are described at length in the preamble of the Roadless Area Conservation Rule (RACR)[9] as well as in the Final Environmental Impact Statement (FEIS) for the RACR[10], and include: high quality or undisturbed soil, water, and air; sources of public drinking water; diversity of plant and animal communities; habitat for threatened, endangered, proposed, candidate, and sensitive species and for those species dependent on large, undisturbed areas of land; primitive, semi-primitive non-motorized, and semi-primitive motorized classes of dispersed recreation; reference landscapes; natural-appearing landscapes with high scenic quality; traditional cultural properties and sacred sites; and other locally identified unique characteristics (e.g., include uncommon geological formations, unique wetland complexes, exceptional hunting and fishing opportunities).



Designated critical habitat for Mexican Spotted Owl overlaps with two proposal areas. Credit: USFWS.

In addition to the description of the value of roadless lands to the conservation of biodiversity in the FEIS, numerous articles in the scientific literature recognize the contribution of roadless and undeveloped lands for biodiversity, connectivity, and conservation reserve networks. For example, Loucks et al (2003) examined the potential contributions of roadless areas to the conservation of biodiversity, and found that more than 25% of Inventoried Roadless Areas (IRAs) are located in globally or regionally outstanding ecoregions and that 77% of IRAs have the potential to conserve threatened, endangered, or imperiled species. Arcese and Sinclari (1997) highlighted the contribution that IRAs could make toward building a representative network of conservation reserves in the United States, finding that protecting these areas as reserves would expand ecoregional representation, increase the area of reserves at lower elevations, and increase the number of areas large enough to provide refugia for species needing large tracts relatively undisturbed by people. Crist and Wilmer (2002) looked at the ecological value of roadless lands in the Northern Rockies and found that protection of national forest roadless areas, when added to existing federal conservation lands in the study area, would: 1) increase the representation of virtually all land cover types on conservation lands at both the regional and ecosystem scales, some by more than 100%; 2) help protect rare, species-rich, and often-declining vegetation communities; and 3) connect conservation units to create bigger and more cohesive habitat "patches."

The Forest Service, National Park Service, and U.S. Fish and Wildlife Service recognize that protecting and connecting undeveloped areas is an important action agencies can take to enhance climate change adaptation. For example, the Forest Service National Roadmap for Responding to Climate Change (2011)

[9] Federal Register, Vol. 66, No. 9. January 12, 2001. Pages 3245-3247.
[10] Final Environmental Impact Statement, Vol. 1, 3–3 to 3–7.

establishes that increasing connectivity and reducing fragmentation are short- and long-term actions the Forest Service should take to facilitate adaptation to climate change.[11] The National Park Service also identifies connectivity as a key factor for climate change adaptation along with establishing "blocks of natural landscape large enough to be resilient to large-scale disturbances and long-term changes" and other factors. The agency states that: "[t]he success of adaptation strategies will be enhanced by taking a broad approach that identifies connections and barriers across the landscape. Networks of protected areas within a larger mixed landscape can provide the highest level of resilience to climate change."[12] Similarly, the U.S. Fish and Wildlife Service's National Fish and Wildlife Adaptation Strategy calls for creating an ecologically-connected network of conservation areas.[13]

The Cibola National Forest currently has 137,701 acres designated as Wilderness. In addition to these acres, it has 246,000 acres classified as IRAs pursuant to the Roadless Area Conservation Rule.[14] Based on our field inventory, we know there are additional roadless lands adjacent to and near the IRAs. Additionally, there are a number of places where our proposal areas are adjacent to neighboring BLM lands where conservation designations are being considered or have been administratively designated to protect roadless character. Examples of this occur between the BLM's Rio Puerco Field Office and the proposed Guadalupe Recommended Wilderness Area (RWA) on the Mt. Taylor Ranger District, and between the BLM's Socorro Field Office and the proposed Magdalena Mountains and Scott Mesa RWAs on the Magdalena Ranger District. BLM existing and proposed designations adjacent to our proposed RWAs include Wilderness Study Areas (WSAs), Areas of Critical Environmental Concern (ACECs), and Lands with Wilderness Characteristics (LWCs). The adjacency of these undeveloped and important places offers opportunities to protect broader landscapes, especially those that include higher and lower elevation areas and a variety of habitats – especially important to facilitate climate change adaptation – and explore cooperative management opportunities. Section C of this overview lists the adjacent BLM designations; Appendix F provides a summary of the management situation for each existing and

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[11] Forest Service, 2011. *National Roadmap for Responding to Climate Change*. US Department of Agriculture. FS-957b. Page 26.

[12] National Park Service. *Climate Change Response Program Brief.* http://www.nature.nps.gov/climatechange/adaptationplanning.cfm. Also see: National Park Service, 2010. *Climate Change Response Strategy*. http://www.nature.nps.gov/climatechange/docs/NPS_CCRS.pdf. Objective 6.3 is to "Collaborate to develop cross-jurisdictional conservation plans to protect and restore connectivity and other landscape-scale components of resilience."

[13] See http://www.wildlifeadaptationstrategy.gov/pdf/NFWPCAS-Chapter-3.pdf. Pages 55- 59. The first goal and related strategies are:

> Goal 1: Conserve habitat to support healthy fish, wildlife, and plant populations and ecosystem functions in a changing climate.
>
> > Strategy 1.1: identify areas for an ecologically-connected network of terrestrial, freshwater, coastal, and marine conservation areas that are likely to be resilient to climate change and to support a broad range of fish, wildlife, and plants under changed conditions.
> >
> > Strategy 1.2: Secure appropriate conservation status on areas identified in Strategy 1.1 to complete an ecologically-connected network of public and private conservation areas that will be resilient to climate change and support a broad range of species under changed conditions.
> >
> > Strategy 1.4: Conserve, restore, and as appropriate and practicable, establish new ecological connections among conservation areas to facilitate fish, wildlife, and plant migration, range shifts, and other transitions caused by climate change.

[14] Final EIS for the Roadless Area Conservation Rule, Volume 2.

proposed designation; and Appendix A includes maps that show the cross-boundary conservation potential.

It is also important to highlight that the Cibola National Forest has regionally significant wild areas. In 2000, Aplet et al (2000) applied a wildness index to map wildness at the scale of the contiguous United States. Grounded in the understanding that wildness is present in varying degrees in all lands as a function of the relative freedom and naturalness of the place, Aplet's wildness index is based on aggregated values for six attributes: solitude, remoteness, uncontrolled processes, natural composition, unaltered structure, and pollution. Although there are a number of wildness indices in the literature, Aplet's wildness index enables a consistent comparison of wildness values across a region and the country and can point out the larger places with wildness values and the potential to connect them (Aplet et al., 2000).

When we look at the wildness map developed by Aplet et al in the region of the Cibola National Forest (see Appendix A: Maps 4.1 and 4.2), we see that the Cibola National Forest – and in particular the Magdalena Ranger District – has very high wildness values. In addition, regionally, the wild lands within portions of the Cibola National Forest are important pieces in a larger network of wild lands in southwest New Mexico and southeastern Arizona that includes Wilderness areas, Bureau of Land Management WSAs, U.S. Fish and Wildlife Service Refuges, and Ted Turner's Pedro Armendaris and Ladder Ranches.

B. Historical and Cultural Overview of Proposal Area

Inhabited by indigenous people for many centuries, New Mexico has also been part of the Spanish empire, part of Mexico, and a U.S. territory. Many cultures have converged across New Mexico, including lands in and around the Cibola National Forest's mountain ranger districts, over the centuries. In particular, the Mt. Taylor and Magdalena Ranger Districts and their surrounding areas have received attention from archeologists and historians. Most of the information provided in this overview comes from three sources: Benedict (2008) for information related to the Mt. Taylor Ranger District, Basham (2011) for information relating to the Magdalena District, and Julyan (1998) for information about the origins of the place names within our proposal areas.

a. Historical and cultural significance of the Mt. Taylor Ranger District

Rising from the floor of the Colorado Plateau, Mt. Taylor is a prominent landmark seen from miles away. The long-range visibility and abundant resources of the mountain and surrounding landscape have attracted people to the area for thousands of years (Benedict, 2008: 6). Human occupation of Mt. Taylor and the surrounding area began during the Archaic Period (c.a. 5,500 to c.a. 500 A.D.; *Ibid*, 6). Mt. Taylor is part of a larger cultural landscape that is sacred and holds considerable significance for the area tribes, including the Navajo Nation, the Hopi Tribe, and the western Pueblos of Acoma, Zuni, and Laguna, many of the Rio Grande Pueblos, and the Jicarilla Apache (*Id.*, 15 and 16). The landscape has long-standing and ongoing historical, cultural, and religious importance for these tribes. "The mountain is defined as a

landscape larger than the peak and its summit. It encompasses the adjacent mesas, plateaus, down to the valleys" (*Id.*, 16). "The mountain is viewed as a living, breathing entity that embodies a spiritual essence" (*Id.*, 16). The landscape and its prominent features are rich with oral traditions and stories of deities. Benedict captured many of these stories in her 2008 report.

In September 2009, the New Mexico Cultural Properties Review Committee issued the final order that approved the nomination for listing the Mt. Taylor Traditional Cultural Property (TCP) on the State Register of Historic Places.[15] Five tribes worked together to nominate the TCP: the Pueblos of Acoma, Laguna, and Zuni, the Hopi Tribe and Navajo Nation. The Forest Service, in a separate process, made a determination of eligibility for listing the TCP in the National Register of Historic Places on February 4, 2008.[16]

The Forest Service's TCP boundary as delineated in the eligibility determination has a similar, but not identical, boundary as the state TCP. The difference between the two boundaries is shown here.[17] The state and federal TCP boundaries both attempt to reflect the cultural meaning that the landscape has to the Tribes. The boundaries follow as closely as possible the geographic features of the mountain. The designation includes not only the summit and slopes of the mountain, but also follows along the base of the principle mesas at the point where the steep slopes of the mesas begin to transition onto gentler slopes as they approach the valley. The Forest Service's eligibility determination was based on the long-standing and ongoing historical, cultural, and religious importance to the Tribes, the spirit beings that inhabit the mountain which figure into the oral traditions of the Tribes, and the important insights that the area has and will continue to provide into the Puebloan and Navajo traditions and culture through ethnographic studies, scholarly research and published stories and poetry describing the mountain and its importance to the area Tribes.[18]

The Mt. Taylor TCP encompasses nearly all of the proposed Guadalupe Recommended Wilderness Area (see Appendix A: Map 7). It is likely that native peoples for centuries migrated through the landscape on

[15] The State's website for the Mt. Taylor TCP is online here: http://www.nmhistoricpreservation.org/featured/mt.-taylor-register-listing.html

[16] In February 2008, the Pueblos of Acoma, Laguna, and Zuni, the Hopi Tribe and Navajo Nation nominated the Mt. Taylor Traditional Cultural Property (TCP) for inclusion on the State Register of Historic Places for a one-year temporary listing. The nominating Tribes submitted a nomination for permanent listing on April 22, 2009. On June 5, 2009 the New Mexico Cultural Properties Review Committee unanimously voted to list Mt. Taylor on the State Register. The Committee issued the final order on September 14, 2009 approving the nomination for listing.[16] The Forest Service, in a separate process, made a determination of eligibility for listing the TCP in the National Register of Historic Places on February 4, 2008. On February 4, 2011, a state district court in New Mexico ruled against the tribes and the state and overturned the state's TCP designation. The lawsuit was brought by a coalition that includes mining companies, ranch owners and the Cebolleta state land grant community. The defendants in the case, the Tribes and the New Mexico Cultural Properties Review Committee, appealed the lower court's decision. The case bypassed appellate courts and went straight to the New Mexico Supreme Court. The Supreme Court issued its decision on February 6, 2014 finding that the state acted lawfully when including the TCP designation on the state register. The court did, however, reverse the panel's inclusion of 19,000 acres of land grant property, saying it was not state land as defined in the Cultural Properties Act.

[17] http://www.nmhistoricpreservation.org/documents/cprc/mt.jpg

[18] To be considered eligible to the National Register of Historic Places, a property must meet at least one of the criteria as defined in National Register Bulletin 15. The Forest Service found that the Mt. Taylor TCP met three of the criterion: Criterion A, B, and D (*Id.*, 30-31).

their way to Mt. Taylor and the surrounding mesas for religious pilgrimages and sacred offerings (*Id.*, 20 and 35). The giant Mesa Chivato, of which the northeastern portion is within the Guadalupe unit's boundary, is culturally significant to the Navajo, Pueblo, and Hopi peoples (*Id.,* 34-35). The mesa has been identified as a "historic fire/smoke signaling site that was used when the Utes were raiding the area" *Id.* at 34. The mesa is important in the Navajo's "ongoing cultural practices; it is the location for a named ceremony, a place where offerings are left, minerals are collected for use in sand paintings and in puberty ceremonies, and plant gathering occurs (particularly tobacco). Hopi oral traditions indicate that Hopi clans occupied or migrated through this area on their way to the Hopi Mesas. The people of Jemez Pueblo used prescribed areas on the mesa for catching eagles. They still return to these places after visiting shrines higher on the mountain's peak" *Id.,* 34-35. Puebloan sites, primarily artifact scatters (though occasionally including rock features), are recorded on Mesa de la Vereda Piedra Blanca, which is located in the proposed Guadalupe unit (*Id.*, 34-35).

In terms of the Spanish history of the area, "members of Francisco Vasquez de Coronado's expedition were probably the first Europeans to see Mt. Taylor in 1540, as they traveled eastward from Zuni…on their way towards the Rio Grande valley" *Id.* at 10. After Coronado returned to Spain, there were no more known attempts to explore the area for four decades. In the 1590s, Juan de Onate led the effort to conquer and colonize the native peoples of the area. This began a turbulent and violent period of conflict between the Spanish that were arriving and the native people. Land grants given to Hispanic settlers ignited further conflict between the Spanish settlers and Navajo peoples. These land grants ultimately displaced the Navajo out of lands they had traditionally occupied for millennia. "Spanish settlement of the area began to increase following the dispensation of land grants. However, Spanish people did not begin occupation of the Mt. Taylor area until the early 1800s and intensive settlement was delayed, regardless of land grants, until about the 1860s. This delayed settlement is most often attributed to the conflicts between Spanish settlers and the Navajo" (*Id.,* 11).

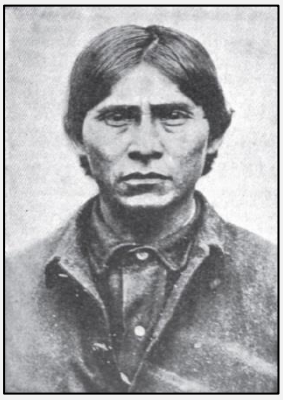
b. Historical and cultural significance of the Magdalena Ranger District

Basham (2011) noted in his report documenting the archeological history of the Magdalena District that "[t]he heritage resources on the district are diverse and representative of nearly every prominent human evolutionary event known to anthropology. Evidence for human use of district lands date back 14,000 years to the Paleoindian period providing glimpses into the peopling of the New World and megafaunal extinction" (Basham, 2011: 1). Just as the Magdalena Ranger District sits in a transition zone between two types of ecosystems (Colorado Plateau into the Basin and Range Province), it is also situated in a cultural transition zone that contains the material remains of both the Mogollon and the Anasazi cultures (Basham).

From the 1600s until they were defeated in the Apache Wars in the late 1800s, bands of Apache effectively controlled much of southern New Mexico, including the Magdalena-Datil region and the lands in and around what is now the Magdalena Ranger District" (Basham, 15). A mining rush followed the Apache wars – gold, silver, and copper were found in the mountains. It wasn't until this time that extensive use of the area by non-Native Americans occurred (Basham). Artifacts from the prospecting fervor are scattered throughout the general area reminding us of a bygone mining boom. While miners combed the mountains for mineral riches during the late nineteenth and early twentieth centuries, "stockmen drove tens of thousands of sheep and cattle to stockyards at the village of Magdalena, then linked by rail with Socorro" (Julyan, 2006, p. 282). In fact, "the last regularly used cattle trail in the United States stretched 125 miles westward from Magdalena. . . . The route was formally known as the Magdalena Livestock Driveway, but more popularly known to cowboys and cattlemen as the Beefsteak Trail" (Basham, 2011: 20). The trail began use in 1865 and its peak was in 1919. The trail was used continually until trail herding gave way to trucking, at which point the trail was closed in 1971 (Basham, 21).

"The Magdalena District is chock-full of historic lore of the Wild West. Outlaw renegades such as Butch Cassidy and the Wild Bunch and notorious Apaches like Cochise, Geronimo, and Victorio have ties to the mountains of the district" (Basham, 2011: 15). In fact, Vicks Peak, located within the San Mateo Mountains, is named after Victorio who was a Mimbreño Apache leader whose territory included much of the south and southwest New Mexico. "Though less well known among Europeans than Geronimo or Cochise, he is at least as highly regarded among Apaches. . . . In 1879, defying orders to relocate to the despised San Carlos Apache Reservation in Arizona, Victorio fled the reservation at Ojo Caliente and led his warriors on a two-year reign of terror before he was killed by Mexican troops in Mexico" (Julyan, 2006: 373). Perhaps the most famous Apache with ties

Geronimo (c.1829-1909) is pictured above to the far right, with three of his Apache warriors in the Sierra Madre Mountains during a conference with General Crook in March 1886 to end the Apache Wars. Image in public domain from Wikipedia commons and available online here: http://en.wikipedia.org/wiki/Geronimo#mediaviewer/File:Apache_chieff_Geronimo_%28right%29_and_his_warriors_in_1886.jpg.

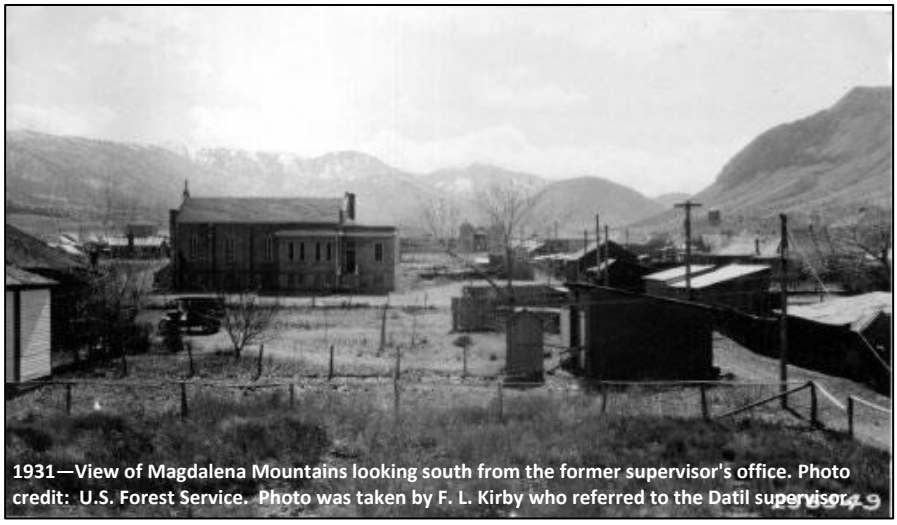


Apache Kid pictured above in 1905. Image in public domain from Wikipedia commons and available online here: http://commons.wikimedia.org/wiki/File:The_Apache_Kid.jpg.

Cochise (c.1805-1874), Apache Chief, likely pictured above circa 1890. Image in public domain from Wikipedia commons and available online here: http://commons.wikimedia.org/wiki/File:Cochise_ornot.jpg.

to the area was the Apache Kid for whom the Apache Kid Wilderness was named. In fact, "stories of depredations by the Apache Kid, and of his demise, became so common and dramatic that in southwestern folklore they may be exceeded only by tales of lost Spanish gold" (*Id.*, 16). Native Americans lingered in the San Mateos well into the 1900s. We know this through an essay written by Aldo Leopold in 1919 where he documents stumbling upon the remains of a recently abandoned Indian hunting camp (Leopold, 1919).

The Forest Service itself has deep roots in the area. "The Magdalena Ranger District traces its roots to 1899 with the creation of the Gila Forest Reserve, and received its name in 1906. . . . In 1910, the Forest Service made Magdalena the headquarters for the Datil National Forest, one of the largest in the nation at over 3 million acres" (*Ibid*, 22).



1931—View of Magdalena Mountains looking south from the former supervisor's office. Photo credit: U.S. Forest Service. Photo was taken by F. L. Kirby who referred to the Datil supervisor.

C. Trans-Boundary Conservation Opportunities between the Cibola National Forest and Bureau of Land Management

Three of our proposed recommended wilderness areas are near or adjacent to BLM lands that are either currently managed or proposed to be managed to protect wilderness characteristics, wildlife values and other natural resources, and quiet recreation experiences. The adjacency of these undeveloped and important places offers opportunities to protect broader landscapes, especially those that include higher and lower elevation areas and a variety of habitats, and explore cooperative management between the Forest Service and BLM. This section provides a summary of the adjacent BLM designations and maps that show the trans-boundary conservation potential between the two agencies.

a. Proposed Magdalena Mountains Recommended Wilderness Area

The proposed Magdalena Mountains Recommended Wilderness Area is adjacent to BLM lands in the Socorro Field Office that are administratively designated and managed to conserve wilderness values or other natural resources. See Map 11.1 in Appendix A. These adjacent designations in the BLM's Socorro Field Office are:

- Devils Backbone WSA
- Devils Reach WSA

- Ladron Mountain – Devil's Backbone Complex ACEC

b. Proposed Scott Mesa Recommended Wilderness Area

The proposed Scott Mesa Recommended Wilderness Area is adjacent to BLM lands in the Socorro Field Office that are administratively designated and managed to conserve wilderness values or other natural resources. See Map 11.2 in Appendix A. These nearby designations in the BLM's Socorro Field Office are:

- Sierra Ladrone WSA
- Ladron Mountain – Devil's Backbone Complex ACEC

c. Proposed Guadalupe Recommended Wilderness Area

The proposed Guadalupe Recommended Wilderness Area is adjacent to wilderness quality lands managed by the BLM's Rio Puerco Field Office. Much of this wilderness quality land is within WSAs that were designated in 1991. In addition, the BLM's Rio Puerco Field Office has proposed several additional administrative designations in the Draft Resource Management Plan that would conserve wilderness values, wildlife or other natural resources, and quiet recreation settings. See Maps 11.3 - 11.6 in Appendix A. The existing and proposed designations and management areas in the BLM's Rio Puerco Field Office are:

- Ignacio Chavez WSA
- Chamisa WSA
- Empedrado WSA
- La Lena WSA
- Chamisa E Lands with Wilderness Characteristics (LWC) - proposed in draft RMP
- Ignacio Chavez A, B, and C LWCs - proposed in draft RMP
- Continental Divide National Scenic Trails Special Recreation Management Area (SRMA) - proposed in draft RMP
- Boca del Oso extensive recreation management area (ERMA) - proposed in draft RMP
- Ignacio Chavez Grant ACEC – proposed in draft RMP
- Cabezon Peak ACEC – existing and proposed expansion in draft RMP
- San Miguel Dome ACEC – proposed in draft RMP
- San Luis Mesa Raptor Area ACEC – existing and proposed in draft RMP
- Canon Tapia ACEC – existing and proposed in draft RMP
- Guadalupe Ruin and Community ACEC – proposed in draft RMP

D. Field Methods

a. Roadless Area Inventory Methods

We drove all of the roads bounding the proposed areas and recorded track logs using an ASUS tablet and GPS software. We documented route conditions and any improvements within our proposed RWAs by taking photographs of waypoints on the ASUS tablet, and recording corresponding field notes. For the Magdalena Ranger District, we used the Travel Analysis Process (TAP) Report to guide which roads and routes to field-check and document, giving highest priority to those identified in the TAP Report for closure. For the Mt. Taylor Ranger District, we used the Motor Vehicle Use Map and TAP Report to guide which roads to field-check and document. We have provided all photographic waypoints to the Forest Service on a DVD as kmz files (Appendix D), along with documentation (description, and photo documentation, at a minimum, at its start and terminus) of the condition of every road that we recommend for cherry-stemming. This road survey is attached as Appendix C. We inventoried the proposed Scott Mesa RWA during the 2014 field season. Inventories for all other proposal areas were conducted during the 2013 field season.

b. Proposal Boundary Methods

Proposal area boundaries were drawn taking into consideration roads and other improvements, topography, mineral claims, landownership, public land survey system, and wilderness character. The areas we are proposing generally align with the Forest Service's CH. 70 first round preliminary wilderness inventory. There are a few places where the agency's inventory and our proposal area boundaries do not align precisely, however. Based on close review of the agency's wilderness inventory maps, roads appear to be the main reason for the divergence. Written narratives for each proposal area where this situation occurs include a rationale for including lands in our proposal that the agency did not identify in its wilderness inventory.

c. Methods to Determine the Occurrence of Mineral Claims and Leases within Our Proposal

This section summarizes the active and pending mineral claims and leases within our proposal areas and the methods followed to find this information.

i. Locatable Minerals

We used the BLM's LR2000 system to determine whether and where active or pending mining claims exist within our proposal areas. Specifically, we used the geographic and serial number report applications, which required looking up the township, range, and sections for each proposal area. LR2000 provided the quarter section where the claims are located, the owner of the claim, and the claim's serial number. From here, we visited the BLM New Mexico State Office in Santa Fe to get the legal descriptions and any available maps for all claims. We conducted our research from January through March in 2013 and again in October through December 2014. Based on information provided by LR2000, we conclude that the status (active, closed, pending) of mining claims in the Cibola changes frequently. New claims are staked and then closed over the course of a single year. The turnover is very difficult to track. Given this ever-changing situation, we have chosen not to document active and

pending locatable mineral claims in our proposal. We can say with confidence that that most of our proposal areas do not have any mining claims within their boundaries.

ii. Leasable and Saleable Minerals

Diane Tafoya, a Forest Service geologist who handles minerals management for the Cibola National Forest, was helpful in providing us with information about leasable and saleable minerals. The Wilderness Society staff spoke with Diane on February 5, 2013, and learned that there are no leasable minerals on the Cibola National Forest's mountain ranger districts. The only leasable rights are on the Cibola's grassland units. In addition, we learned that there are quite a few existing saleable rights across the Cibola's mountain districts but that these rights are difficult to track. Diane noted that the Forest Service recently set up a new database to track saleable rights but the database is not current. It is our understanding that the existing saleable rights in the mountain districts are not major, long-term operations.

Apache Kid

Recommended Wilderness Expansion

Cibola National Forest – Magdalena Ranger District

Apache Kid Wilderness Recommended Expansion

Size

71,919 acres

Area Overview

The Apache Kid Wilderness, located in the southern portion of the San Mateo Mountains, is one of the most remote Wilderness areas in New Mexico. Most of the mountain range is roadless, isolated and natural.

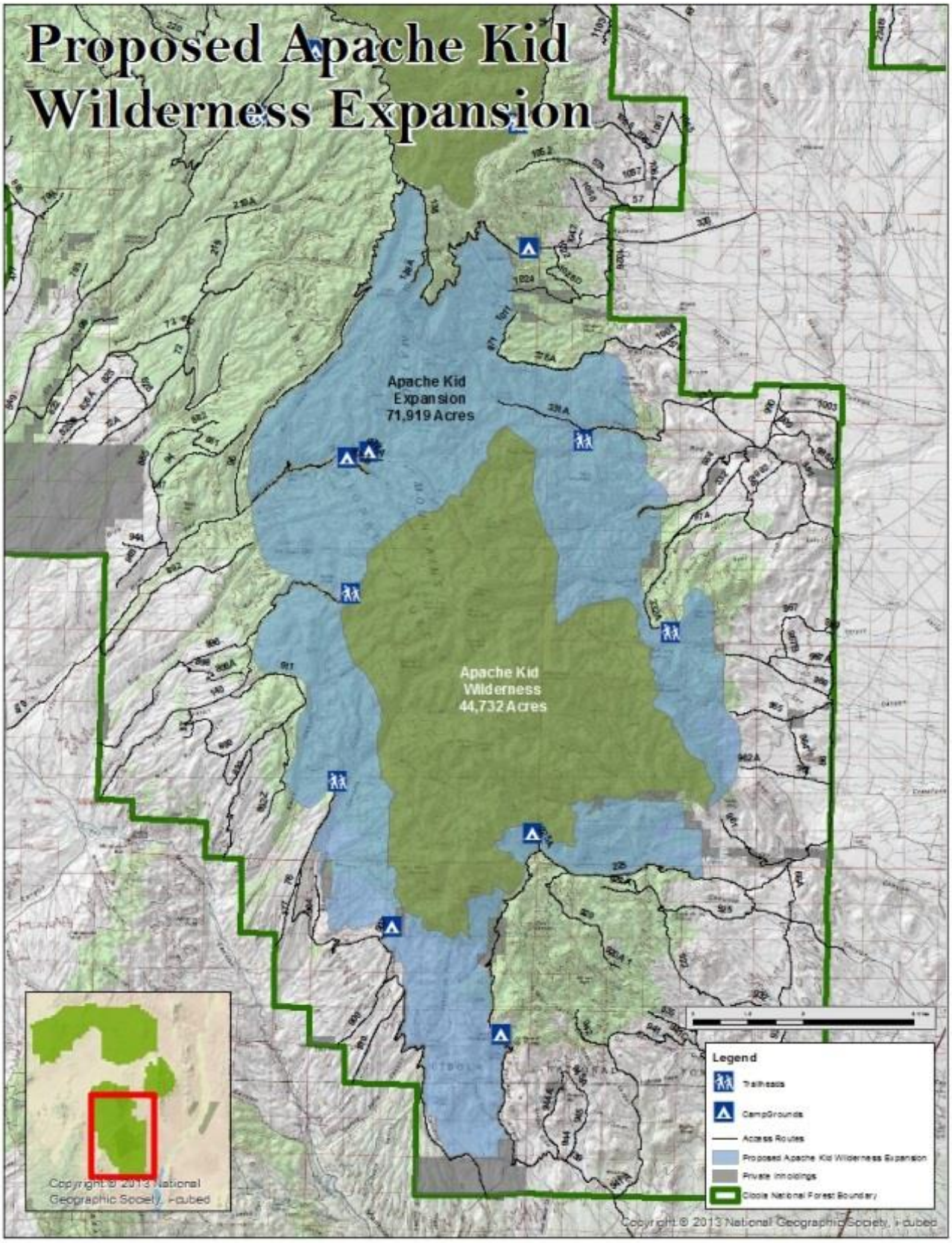
The Apache Kid Recommended Wilderness Expansion includes four separate roadless areas: the Northern, Western, Eastern, and Southern Apache Kid Expansions. All are immediately adjacent to and essentially surround the congressionally-designated Apache Kid Wilderness. Viewed together, the recommended expansion areas and the Apache Kid Wilderness form an 116,651-acre block of wildness.

The four units contain numerous canyons, including East Red Canyon, West Red Canyon, Hidden Springs Canyon, Kelly Canyon, San Mateo Canyon, Deep Canyon, and Cañon de Quirino. Freshwater springs can be found in many of these canyons. Elevations vary from 6,400 feet in the lower portion of The Gorge to 9,678 feet at Grassy Lookout, where sweeping vistas unfold to the south of the Apache Kid Wilderness and surrounding roadless lands.

The scenery found throughout the area is exceptional, with numerous open canyons to explore, high ridge lines with dramatic views and an abundance of opportunities to experience wildness in solitude. The Apache Kid Recommended Wilderness Expansion features landscape whose size, topography and vegetation is especially suited to hiking, backpacking, hunting and other recreational opportunities for those seeking remote and wild experiences. It boasts a variety of wildlife including mountain lion, black bear, elk, mule deer, and turkey.

The area has a rich cultural heritage. The San Mateos are chock-full of historic Wild West lore. Outlaw renegades Butch Cassidy and the Wild Bunch and notorious Apaches like Cochise, Geronimo, and Victorio, for whom Vicks Peak was named, have ties to the mountains (Basham, 2011). Perhaps most famous of these legendary characters to call the San Mateos home was the Apache Kid for whom the Apache Kid Wilderness was named and whose grave is located there.

Looking south at The Parks within the proposed Apache Kid Wilderness Expansion. Photo AK101


Proposed Apache Kid Wilderness Expansion
Apache Kid Expansion 71,919 Acres
Apache Kid Wilderness 44,732 Acres
Legend
Trailheads
CampGrounds
Access Routes
Proposed Apache Kid Wilderness Expansion
Private Inholdings
Cibola National Forest Boundary
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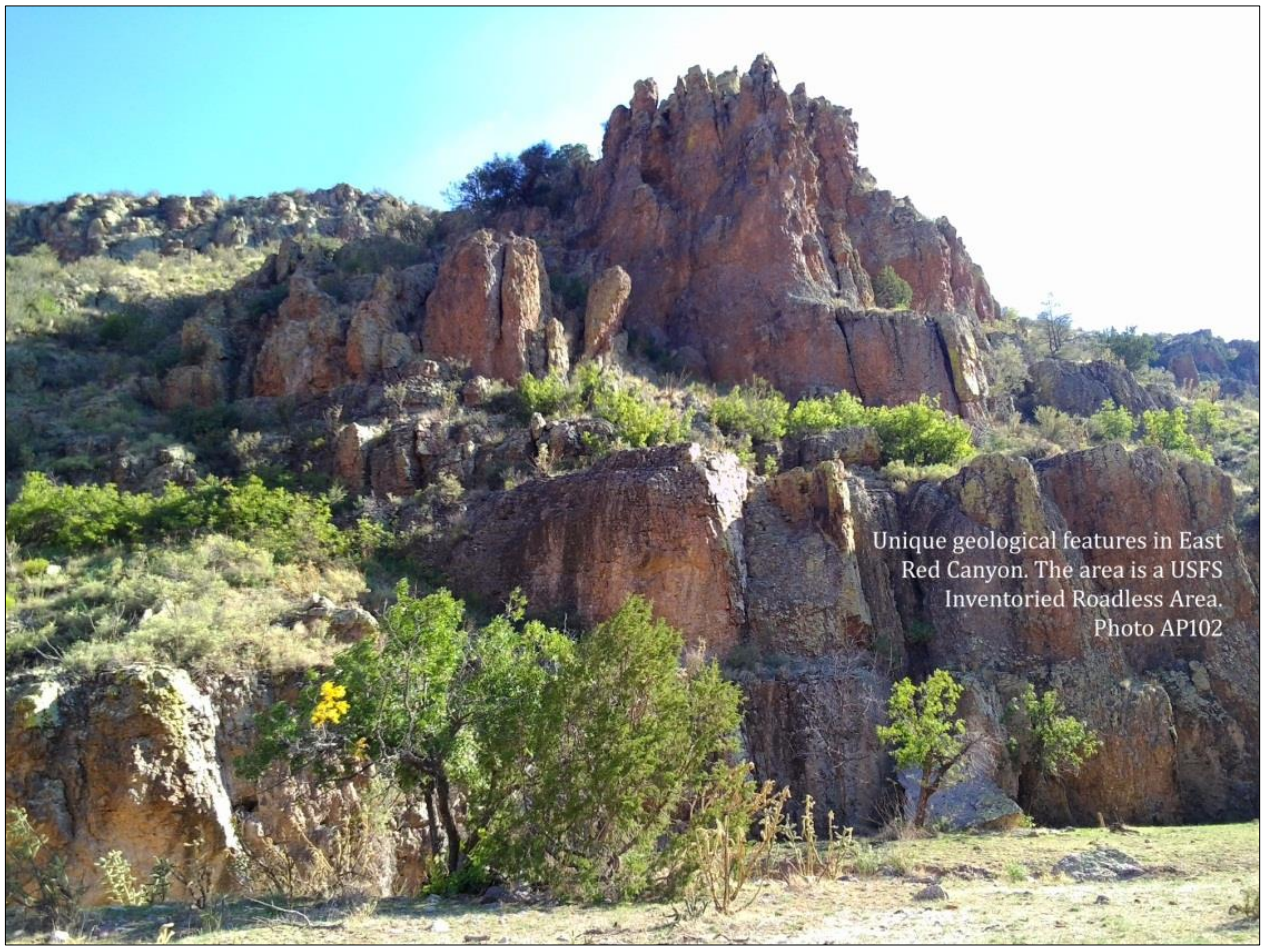
Northern Wilderness Expansion

40,765 acres

Apparent Naturalness

The San Mateo Mountains are one of the most remote landscapes that can be explored in the Cibola National Forest. The absence of any significant human development within or near the range has helped to keep the mountains isolated and natural. The area appears predominantly natural and undeveloped. The few scattered imprints of man—like primitive and naturally reclaimed routes, stock tanks, and fencing—are substantially unnoticeable due to the area's rugged canyons, steep slopes, and vegetation. There are some old Forest Service system routes in the unit that are entirely impassible due to severe washout, erosion, and large downed trees, and natural rehabilitation. Little evidence of dispersed camping off of these old routes exists. Plant and animal communities appear natural and ecological conditions appear normal.

Steep slopes in the northern portion of the unit pour down into the surrounding canyons, which host a variety of vegetation types including ponderosa, oak, aspen, spruce, fir, and all three major juniper types. There is a large variety of grasses and wildflowers including yellow ragweed, purple verbena, sideoats grama, blue grama, burro grass, silver beardgrass, wolftail, and purple threeawn.



Unique geological features in East Red Canyon. The area is a USFS Inventoried Roadless Area. Photo AP102

The San Mateo Mountains are not known for containing considerable quantities of water, yet the proposed Apache Kid Northern Wilderness Expansion features several fresh water springs that are not delineated on most maps. These springs undoubtedly help to contribute to the health and vitality of the many wildlife species common throughout the area.

Outstanding Opportunities for Solitude or Primitive & Unconfined Recreation

The area's size, roadless characteristics, rugged character, remarkable views, vegetation, and proximity to the Apache Kid Wilderness create outstanding potential for solitude as well as unconfined and primitive forms of recreation. Outstanding opportunities for hiking, camping, backpacking, hunting, horseback-riding, and other forms of primitive recreation within the proposed expansion area offer adventure and demand self-reliance. The Forest Service notes in its hiking guide for the San Mateos that Drift Fence Trail (Trail #28), which starts within the proposal area and enters the Apache Kid Wilderness, "certainly offer[s] solitude, as the only users are ranchers hauling salt for cattle by horseback about once a year." The hiking guide also notes that Cold Spring Trail, which starts in the proposal area and eventually leads into the Apache Kid Wilderness, is one of the most scenic trails in the San Mateo Mountains. The trail follows the bottom and west fork of Cold Spring Canyon, both of which contain scenic rock formations and views of the high country around Blue Mountain and Apache Kid Peak. Both East Red Canyon and West Red Canyon offer enticing possibilities for hikers and

Looking east from the headwaters of West Red Canyon at the Magdalena Mountains on the horizon. Photo AP103

Looking east from Panther Flats.
Photo AK104

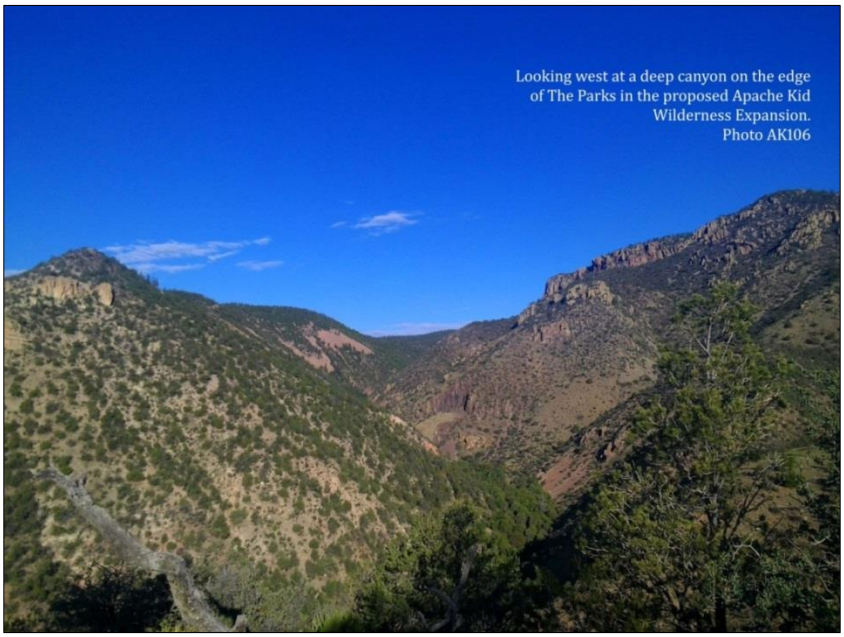
backpackers to explore the heart of the proposed Apache Kid Northern Wilderness Expansion. Large ponderosas preside over both canyons in addition to dramatic rock formations that jut upward from the canyon walls. Healthy stands of gamble oak are common in the area as are stands of plains cottonwood, which line the numerous creek beds. West Red Canyon is a place where bull elk can be observed bugling and mountain lions roam. The Forest Service in its hiking guide suggests that visitors watch the ground carefully for bear droppings along East Red Trail (Trail #31), noting that many nearby trees show claw marks inflicted by bears; trail sign damage also indicates heavy bear use in the canyon.

Opportunities to experience backcountry hunting are also rich in the recommended Apache Kid Northern Wilderness Expansion. Habitat is plentiful and well-functioning ecosystems sustain healthy herds of elk, mule deer, turkey, and quail. The Rocky Mountain Elk Foundation identified important over-winter and calving ranges for elk within the unit (see Map 12.1), and the National Wild Turkey Federation identified the area as habitat for Merriam's turkey (see Map 12.2). The New Mexico Department of Game and Fish's harvest records indicate that Game Management Unit 17, which encompasses the northern unit, offers good deer, high quality elk, and excellent turkey hunting (New Mexico Department of Game and Fish Harvest Data).

The scenery found throughout the proposed Apache Kid Northern Wilderness Expansion is exceptional with numerous open canyons to explore, high ridge lines with dramatic views, an excellent chance to view wildlife, and plentiful opportunities for those seeking quietude, solitude and wildness.

The rugged rock formations and steep canyons that rise from flat plains are themselves spectacular and unusual, but the panoramic views from atop the canyon rims are breathtaking. From atop the canyon rims, views to the east are immense and awe-inspiring. The Magdalena Mountains rise dramatically from the basin floor, while to the west the Plains of San Agustin unfold off the northern reaches of the Gila National Forest. The area's gorges offer remarkable views of high canyon walls and open valley bottoms.

The area's remoteness and proximity to both the Withington Wilderness and Apache Kid Wilderness ensure solitude. Seclusion takes over once visitors leave the boundary roads. It is here where visitors enter a wild place untrammeled by humans and primeval in character. Moreover, there is a sense of



vastness on a grand scale: at night, a complete lack of light pollution provides exceptional stargazing opportunities.

Supplemental Values

There are many special features and values within the proposed Apache Kid Northern Wilderness Expansion, including those described above. Those who explore the area will see rugged rock formations, steep canyons, and panoramic views.

Healthy populations of wildlife throughout the area add to the special character of the unit. In our field visits, we observed and saw signs of wildlife including mountain lion, black bear, elk, mule deer, coyote, turkey, and quail. East Red Canyon and West Red Canyon, in particular, boast numerous signs of scat from mountain lion, bear, and elk. Hundreds of bats were also observed in the open meadows of an area locals refer to as The Park.

The proposed northern expansion area is important breeding ground for mountain lion (See Appendix A: Map 9.3) and serves as a migration corridor to the north and east (see Map 9.2). In addition, the area has been designated as critical habitat for Mexican Spotted Owl (see Map 10.2) and, due to its species richness and ecological diversity, falls within a Nature Conservancy key conservation area (see Map 8.2). It is also considered priority crucial habitat by the New Mexico Department of Game and Fish in its Crucial Habitat Assessment Tool assessment (see Map 5).

The area is also rich with historic and archeological resources. The heritage resources in the area "are diverse and representative of nearly every prominent human evolutionary event known to anthropology. Evidence of human occupation dates back 14,000 years" (Basham, 2011 at 1).

See the proposal overview for more information on the ecology, cultural significance and anthropological history of the region.

Field Data

Field data was collected over the course of five months during the summer and fall of 2012 by traveling Forest Service routes via motorized vehicle, hiking old reclaimed routes that are no longer accessible by the use of a mechanized vehicle, and exploring numerous canyons on backpacking trips and long day hikes.

All routes traveled were tracked and recorded by using mobile GPS software and taking photo waypoints of wilderness characteristics, Forest Service route conditions, and human infrastructure dispersed throughout the area.

Appendix E-1 provides a digest of select photographs that demonstrate the wilderness character of the proposal area. Additional photographs, detailed GPS data, and field notes are available upon request.

While the proposal area generally aligns with the Forest Service's CH. 70 preliminary wilderness inventory, the boundaries do not align precisely. There appears to be three blocks of land in the proposed northern expansion that were not included in the agency's wilderness inventory. Roads appear to disqualify these lands from the agency's inventory. Two of these blocks of land are located on the north side of the Apache Kid Expansion. Based on our field inventory, these two blocks of land have wilderness characteristics and are free of roads and other improvements. The distance between the roads (96-138 and 330-1011) is large enough to justify extending the boundary northward. While the Forest Service's wilderness inventory map shows a few short spur roads in the area, the agency is proposing to close these roads in its travel plan. The third block of land is located in the middle of the proposed northern expansion of the Apache Kid Wilderness. Roads 478, 478A, and 478B and the nearby developed camp sites appear to disqualify this land from being included in the inventory. The distance between these roads and camp sites is large enough for wilderness character to exist between them, which is why our boundary extends between these roads. See Appendix C for justification about why we included or cherry-stemmed these roads in our proposal, following the roads criteria in the agency's Chapter 70 Handbook.

Manageability

Because of limited access, the majority of the proposed Apache Kid Northern Wilderness Expansion is isolated from areas of human activity. The area does not have motorized activity occurring within its proposed boundaries. There appear to be no private in-holdings within the unit. At the time that we wrote this proposal, there were no active or pending mining claims, operations, or leases in the area. The proposal area is 40,765 acres; 24,369 acres - or 60% - overlap with the Apache Kid Contiguous Inventoried Roadless Area (IRA).

Access Information

Access to the proposed Apache Kid Northern Wilderness Expansion is via FS Road 478, southwest of the town of Magdalena, NM. West Red Canyon offers immediate access into the area, as does FS Road 331 A, FS Road 378, and FS Road 138.

There are two established Forest Service campgrounds cherry-stemmed within the Apache Kid Northern Wilderness Expansion. Further, West Red Canyon offers dispersed camping for those seeking a primitive experience, as does East Red Canyon and Grassy Lookout.

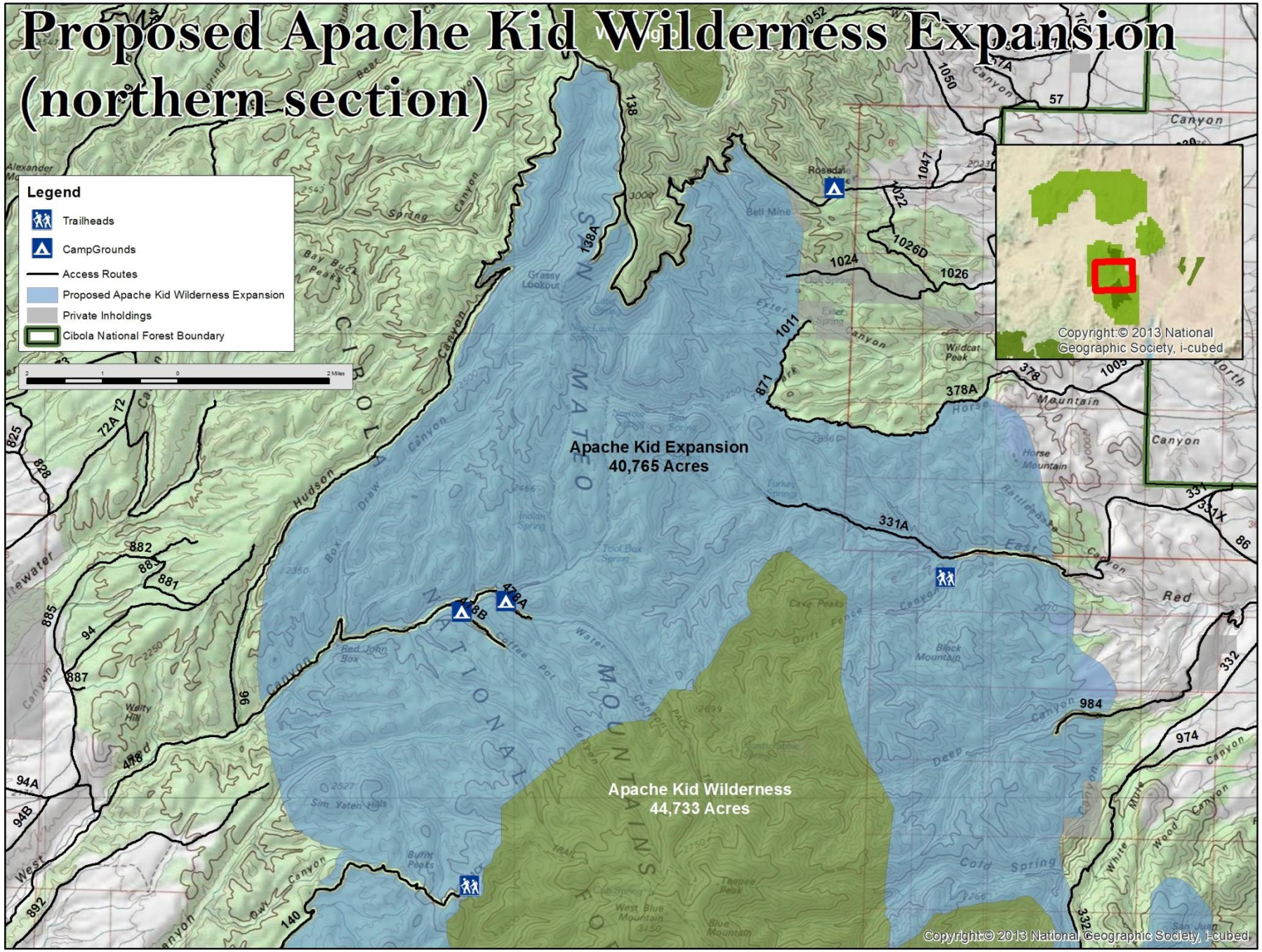
Improvements

The boundaries of the northern unit are generally defined by the USFS Inventoried Roadless Area on the northern end of the Apache Kid Wilderness, in addition to other Forest Service land in the West Red Canyon area. Specifically, the boundaries of the unit are defined by Forest Service Road 138 and 330 to the north, Forest Service Road 96 to the west, and Forest Service Road 1011 and 378 to the east. Forest Service Road 331 A, 478, 478 B, and 478 A are cherry-stemmed.

Route 331 A is located in the canyon bottom of East Red Canyon. Route 331 A is cited in the Forest Service TAP analysis as a needed road, yet the route is washed out in numerous locations and is generally difficult to travel. It appears that the route receives little to no use from recreational users due to the condition of the route and the absence of dispersed recreational campsites stemming off of the route.

Eighteen routes are included within the unit because they do not meet the conditions necessary to disqualify an area per the draft Forest Service Handbook 1909.12, chapter 70. These routes are described in Appendix C.

In terms of improvements beyond roads, the area does not have any permanent structures. There are a few wooden cattle pens and stock tanks in the area, yet all of the cattle pens west of Drift Fence Canyon are in extremely poor condition, and appear not to be in use. At the mouth of Drift Fence Canyon there is a Forest Service gate that could be closed with permittee access only. There are some non-motorized trails. Photographs of these human imprints are provided in Appendix E-1.


Proposed Apache Kid Wilderness Expansion
(northern section)
Legend
Trailheads
CampGrounds
Access Routes
Proposed Apache Kid Wilderness Expansion
Private Inholdings
Cibola National Forest Boundary
Apache Kid Expansion
40,765 Acres
Apache Kid Wilderness
44,733 Acres
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Eastern Wilderness Expansion

9,977 acres

Apparent Naturalness

Like the proposed Northern Expansion, the Eastern Apache Kid Recommended Wilderness Expansion area is predominantly natural and undeveloped. The few scattered imprints of man—primitive and naturally reclaimed routes, stock tanks, and fencing—are substantially unnoticeable due to the area's rugged canyons, steep slopes, and vegetation. There are a handful of Forest Service system routes adjacent to the unit that are generally difficult to travel due to the rocky nature of the system roads. Little evidence of dispersed camping off of these old routes exists. Plant and animal communities appear natural and ecological conditions appear normal.

Steep slopes throughout the unit pour down into the surrounding canyons, providing for a variety of vegetation types including ponderosa, oak, aspen, spruce, fir, and all three major juniper types. Many species of grasses and wildflowers thrive in the expansion area including yellow ragweed, purple verbena, sideoats grama, blue grama, burro grass, silver beardgrass, wolftail, and purple threeawn. There are few non-native species within the unit, which only intensifies the feeling that the area is ruled by the forces of nature.

The Eastern Apache Kid Recommended Wilderness Expansion also enjoys an abundance of wildlife. The type of habitat found in this area

sustains populations of mountain lion, black bear, elk, mule deer, great horned owl, and Mexican spotted owl. Though the region is not known for containing considerable water resources, the proposed Apache Kid Eastern Wilderness Expansion features several fresh water springs that contribute to the health and vitality of the many wildlife species common throughout the area.

Outstanding Opportunities for Solitude or Primitive & Unconfined Recreation

Due to its size, roadless characteristics, topography, vegetation, and proximity to the Apache Kid Wilderness, the proposed Apache Kid Eastern Wilderness Expansion provides outstanding opportunities for solitude as well as unconfined and primitive forms of recreation including hiking, camping, backpacking, hunting, and horseback-riding. The area demands self-reliance and rewards visitors with unforgettable adventures.

Deep Canyon, Cold Spring Canyon, and The Gorge all present attractive possibilities for hikers and backpackers to explore the proposed Apache Kid Eastern Wilderness Expansion. Cold Spring Canyon is one of the most visually appealing trails in the San Mateo Mountains. The canyon contains scenic rock formations and views of the high country around Blue Mountain and Apache Kid Peak. Large cottonwoods, boxelders, chokecherry, and walnut trees can be found throughout Cold


Looking southwest from a boundary road.
Photo AK109

Spring Canyon in addition to dramatic rock formations that jut upward from the canyon walls. Healthy stands of ponderosa pine can be found interspersed in the area. Signs of black bear and elk can be observed within Cold Spring Canyon.

Opportunities to experience backcountry hunting are extensive in the existing Wilderness area, and they are also rich in the proposed eastern expansion. Habitat is plentiful and the area's ecosystems sustain healthy herds of elk, mule deer, turkey, and quail. The National Wild Turkey Federation identified the area as habitat for Merriam's turkey (see Map 12.2). The New Mexico Department of Game and Fish's harvest records indicate that Game Management Unit 17, which encompasses the eastern unit, offers good deer, high quality elk, and excellent turkey hunting (New Mexico Department of Game and Fish Harvest Data).

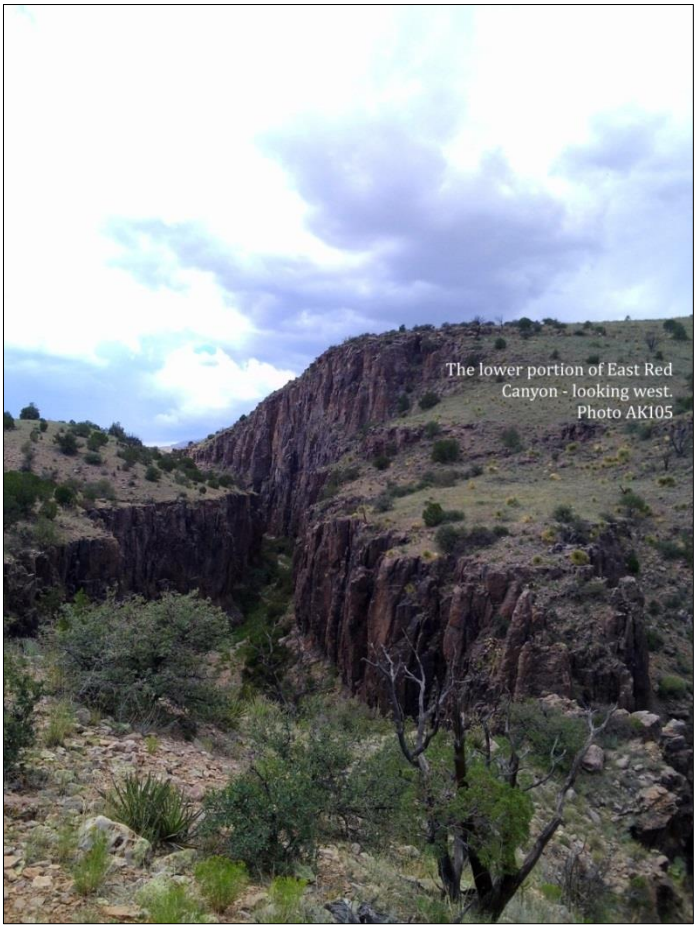
From atop the canyon rims, views to the east are immense and breathtaking. The Magdalena Mountains can be seen rising dramatically from the basin floor, while to the south and west, the Apache Kid Wilderness dominates the landscape, with Blue Mountain and Apache Kid Peak prominently featured. The various gorges throughout the area also afford remarkable views of high canyon walls and open valley bottoms. Furthermore, the sense of vastness translates well into nighttime when visitors are treated to stunning night skies and brilliant, untainted starscapes.

The feeling of seclusion takes hold when leaving the boundary roads. The area's remoteness and proximity to the Apache Kid Wilderness ensures a solitary experience where visitors can experience a place that is truly wild, untrammeled, and primeval.

Supplemental Values

The scenery found throughout the proposed Apache Kid Eastern Wilderness Expansion is exceptional, with numerous open canyons, arresting rock formations, and high imposing ridge lines. Panoramic views from atop the canyon rims are terrific, and the canyons themselves, not to be outdone, serve as reminders of our geologic past and present.

Healthy populations of wildlife found throughout the area add to its special character. In our field visits, we observed and saw signs of wildlife including mountain lion, black bear, elk, mule deer, coyote, turkey, and quail among


The lower portion of East Red Canyon - looking west. Photo AK105

other species. Thriving wildlife populations likely exist in Cold Spring Canyon based on the amount of lion, bear, and elk scat observed in the field. Deep Canyon and the Gorge are rife with evidence of wild turkey.

Looking west at Cold Spring Canyon in the proposed Apache Kid Wilderness Expansion.
Photo AK110

The proposed eastern expansion area is an important breeding ground for mountain lion (see Appendix A: Map 9.3) and has been designated as critical habitat for Mexican Spotted Owl (see Map 10.2). In addition, the area is a Nature Conservancy key conservation area due to its species richness and ecological diversity (see Map 8.2) and is considered priority crucial habitat by the New Mexico Department of Game and Fish (see Map 5).

The heritage resources in the area "are diverse and representative of nearly every prominent human evolutionary event known to anthropology" (Basham, 2011: 1). Widespread evidence suggests human occupation that dates back 14,000 years (Basham). The area is also rich with historic Western lore and serves as a backdrop to legends of outlaw renegades like Butch Cassidy and the Wild Bunch. The San Mateos in particular have ties to notorious Apaches like Cochise, Geronimo, Victorio, and the Apache Kid (Basham).

See the proposal overview for more information on the ecology, cultural significance and human history of the region.

Field Data

Field work was conducted throughout the area over the course of five months during the summer and fall of 2012 and was performed by traveling Forest Service routes via motorized vehicle, hiking reclaimed routes that are no longer accessible by the use of a mechanized vehicle, and exploring the numerous canyons on backpacking trips and long day hikes.

All routes traveled were tracked and recorded with mobile GPS software and photo waypoints that documented wilderness characteristics, conditions of Forest Service routes, and human infrastructure dispersed throughout the area. Appendix E-1 provides a digest of select photographs that demonstrate the wilderness character of the proposal area. Additional photographs, detailed GPS data and field notes are available upon request.

Manageability

The majority of the proposed Apache Kid Eastern Wilderness Expansion is isolated from human activity with limited access. The area does not allow motorized activity within its proposed boundaries. In addition, there are a handful of private inholdings adjacent to the units and one inholding within the unit. At the time that we wrote this proposal, there were no active or pending mining claims, operations, or leases in the area. The proposal area is 9,977 acres; 7,506 acres - or 75% - overlap with the Apache Kid Contiguous Inventoried Roadless Area (IRA).

Access Information

Primary access to the proposed Apache Kid Eastern Wilderness Expansion is via FS Road 984, south of the town of Magdalena, NM. Indian Creek Trailhead 48 offers immediate access into the area, as do the trailheads at Cold Spring Canyon and Skeleton Ridge in addition to FS Road 332 and FS Road 962.

There is one Forest Service campground adjacent to the proposed Apache Kid Eastern Wilderness Expansion. There are three USFS Trailheads adjacent to the boundary of the unit -- Indian Creek, Skeleton Ridge, and Cold Spring Canyon -- which all offer immediate access to those seeking a primitive experience.

Improvements

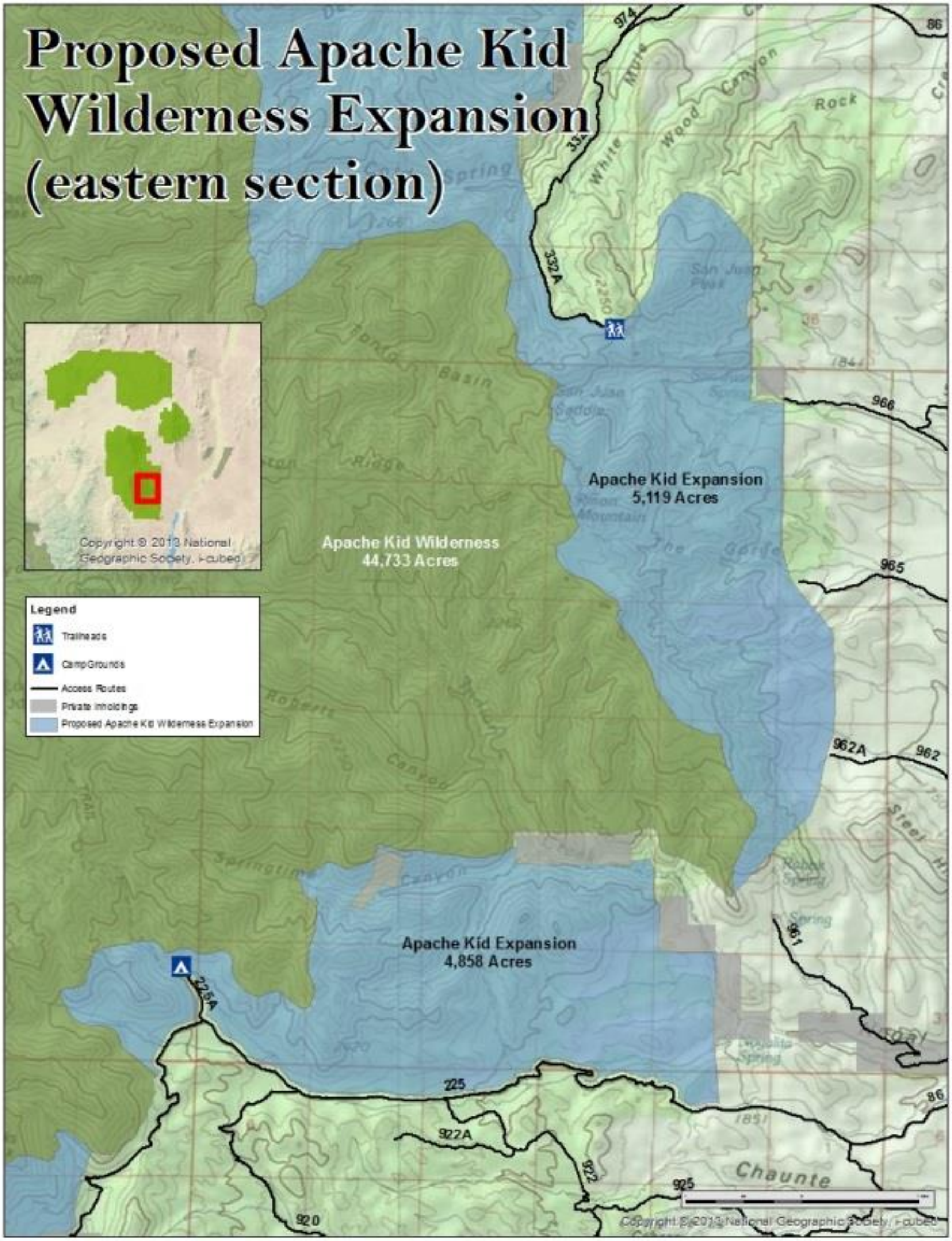
The boundary of the eastern unit is generally defined by the two USFS Inventoried Roadless Areas immediately east of the Apache Kid Wilderness and includes Cold Spring Canyon, Deep Canyon, San Juan Peak, Piñon Mountain, and The Gorge. Specifically, the boundaries of the unit are defined by Forest Service Road 984, 332A, 966, 965, and 962.

Eight routes are included within the unit because they do not meet the conditions necessary to disqualify an area per the draft Forest Service Handbook 1909.12, chapter 70. These routes are described in Appendix C.

In terms of improvements beyond roads, the area does not have any permanent structures, and the occasional signs of human activity including abandoned routes, stock tanks, and fencing are substantially unnoticeable due to

Looking east from Panther Flats.
Photo AK104

the area's rugged canyons, vegetative diversity, natural reclamation, and steep slopes. Photographs of human imprints are provided in Appendix E-1.


Proposed Apache Kid Wilderness Expansion (eastern section)
Apache Kid Wilderness
44,733 Acres
Apache Kid Expansion
5,119 Acres
Apache Kid Expansion
4,858 Acres
Legend
Trailheads
CampGrounds
Access Routes
Private Inholdings
Proposed Apache Kid Wilderness Expansion
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Southern Wilderness Expansion

9,097 acres

Apparent Naturalness

The area appears predominantly natural and undeveloped with few scattered imprints of man such as primitive and naturally reclaimed routes, stock tanks, and fencing, which are all substantially unnoticeable due to the area's rugged canyons and vegetation. There are a few old Forest Service system routes in the unit that are entirely impassible due to severe erosion, large downed trees, and natural rehabilitation. Little evidence of dispersed camping off of these old routes exists. Plant and animal communities appear natural and ecological conditions appear normal.

This area encompasses the foothills and volcanic crags that sprawl south from majestic Vicks Peak. There is a wealth of plant diversity in the area including all three major juniper types, mountain, alligator, and one-seed juniper, as well as a large variety of grasses including vine mesquite, sideoats grama, blue grama, silver beardgrass, wolftail, sacaton, needle and thread grass, and burro grass. Other vegetation commonly seen includes Apache plume, desert spoon stool, narrowleaf yucca, Torrey yucca, piñon pine, desert holly, scarlet globemallow, purple aster, and penstemon. There are few non-native species within the unit, which only increases the feeling that the area is controlled by the forces of nature.

The Apache Kid Recommended Southern Wilderness Expansion also affords habitat to an abundance of wildlife. The ecosystem here sustains healthy populations of mountain lion, black bear, turkey, bobcat, mule deer, pronghorn, elk, coyote, kestrel, quail, red tail hawk, golden eagle, great horned owl, and Mexican spotted owl. Cañon de Quirion in particular has plentiful signs of bear, mule deer, and pronghorn.

Outstanding Opportunities for Solitude or Primitive & Unconfined Recreation

The area's size, roadless characteristics, topography, vegetation, quality habitat and remarkable views provides exceptional backcountry opportunities for hikers, hunters, backpackers, campers, and horseback riders. The area's remoteness and proximity to the Apache Kid Wilderness ensures solitude as well as opportunities unconfined and primitive forms of recreation. The area offers visitors adventure and demands self-reliance.

Cañon de Quirino and Uvas Canyon are exceptionally enticing to hikers and backpackers who want to explore the heart of the proposed Apache Kid Southern Wilderness Expansion. Cañon de Quirino is one of the most attractive canyons in the unit. The canyon contains scenic rock formations and views of the high country around Vicks Peak, as well as unobstructed views to the south of the Chihuahuan Desert floor. Cañon de Quirino offers especially viable

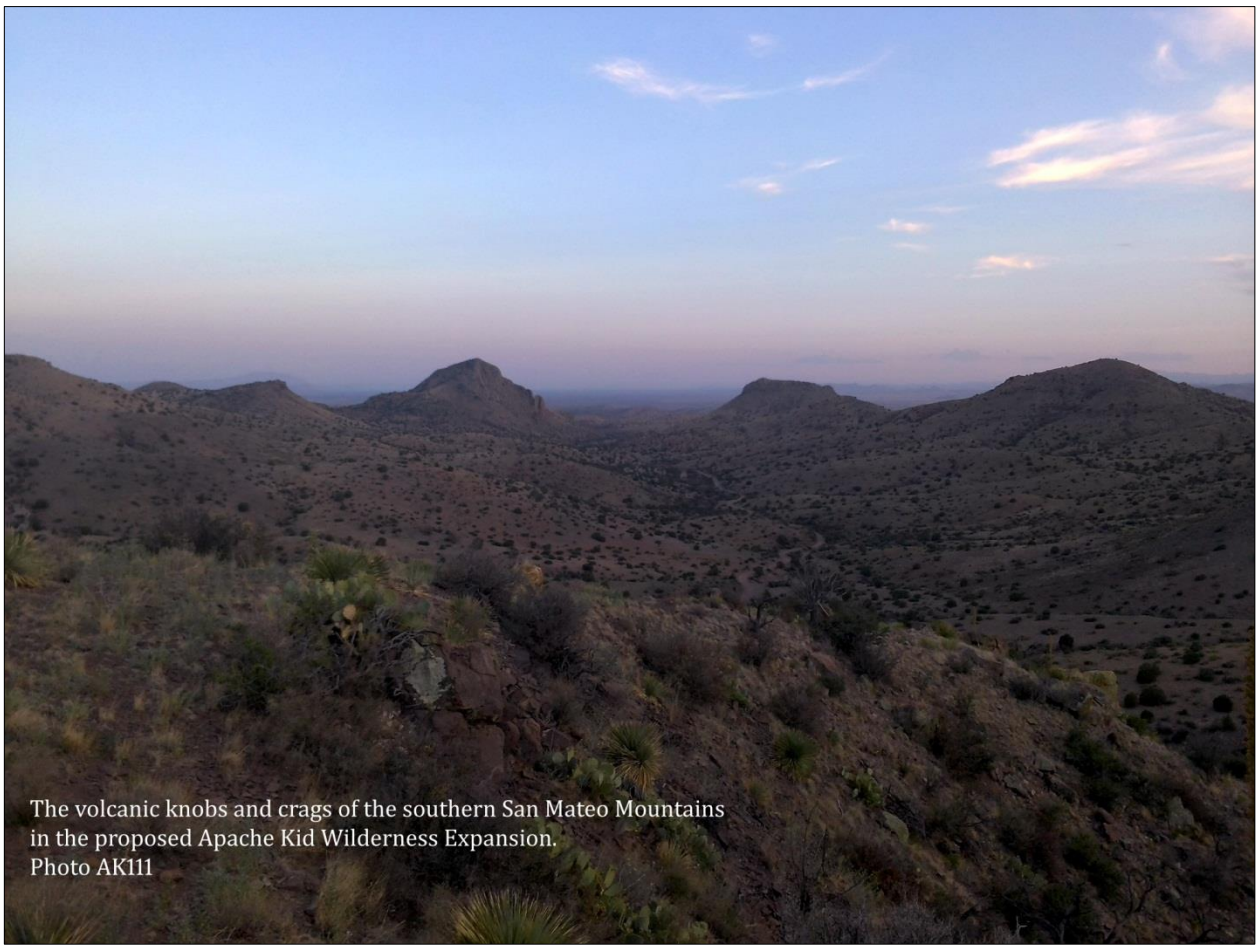
Looking northeast at the ramparts of the Apache Kid Wilderness and surrounding USFS Inventoried Roadless Areas. Photo AK113

black bear, mule deer, and great horned owl habitat.

Backcountry hunting is exceptional in the recommended Apache Kid Southern Wilderness Expansion where mule deer, turkey, and quail habitat is plentiful. The National Wild Turkey Federation identified the area as habitat for Merriam's turkey (see Map 12.2). The New Mexico Department of Game and Fish's harvest records indicate that Game Management Unit 17, which encompasses the southern unit, offers good deer, high quality elk, and excellent turkey hunting (New Mexico Department of Game and Fish Harvest Data).

The area's remoteness and proximity to the Apache Kid Wilderness ensures solitude. Once visitors leave the boundary roads, they experience complete seclusion and know that they are within a wild place untrammeled by humans and primeval in character.
The scenery found throughout the proposed Apache Kid Southern Wilderness Expansion is exceptional, with numerous volcanic crags and plugs to explore, and surrounding narrow canyons that offer excellent chances to view wildlife and experience complete seclusion. From atop the canyon rims, views to the south are immense. The Forest Service's hiking guide suggests that the southern end of the San Mateos might be the most scenic place in the entire range.

The Chihuahuan Desert floor stretches as far as the eye can see and the Gila National Forest unfolds to the west. To the north, Vicks Peak dominates the landscape. The various gorges in the area also offer remarkable views of high canyon walls and open valley bottoms. And like



The volcanic knobs and crags of the southern San Mateo Mountains in the proposed Apache Kid Wilderness Expansion.
Photo AK111

its counterparts, the proposed Apache Kid Southern Wilderness Expansion is ideal for those seeking the tranquility and vastness of a pristine night sky.

Supplemental Values

The striking and unusual rock formations, steep canyons, and panoramic views all contribute to the special character of the proposed Apache Kid Southern Wilderness Expansion. Healthy populations of wildlife throughout the area also add to the special character.

The proposed southern expansion area is important breeding ground for mountain lion (See Appendix A: Map 9.3) and is within a Nature Conservancy key conservation area due to its species richness and ecological diversity (see Map 8.2).

The area is full of historic lore including ties to infamous Apaches who lead the resistance against America's westward expansion and notorious outlaws Butch Cassidy and his Wild Bunch (Basham, 2011). In addition to being historically relevant, the area is also anthropologically significant as it contains evidence of human occupation as long ago as 14,000 years (Basham).See the proposal overview for more information on the ecology, cultural significance and human history of the region.

Manageability

The majority of the proposed Apache Kid Southern Wilderness Expansion is isolated from human activity with limited access. The area does not have motorized activity occurring within its proposed boundaries. There is one private in-holdings within the unit but road 907 would continue to offer access. At the time that we wrote this proposal, there were no active or pending mining claims in the unit. The proposal area is 9,097 acres; 7,437 acres - or 82% - overlap with the Apache Kid Contiguous Inventoried Roadless Area (IRA).

Field Data

Field work was conducted throughout the area over the course of five months during the summer and fall of 2012 and was performed by traveling Forest Service routes via motorized vehicle, hiking reclaimed routes that are no longer accessible by mechanized vehicle, and by exploring the area's numerous canyons on backpacking trips and long day hikes.

All of these routes were tracked and recorded using mobile GPS software and photo waypoints that documented wilderness characteristics, road conditions, and human infrastructure. Appendix E-1 provides a digest of select photographs that demonstrate the wilderness character of the proposal area. Additional photographs, detailed GPS data, and field notes are available upon request.

Access Information

Primary access to the proposed Apache Kid Southern Wilderness Expansion is via FS Road 225, as it travels south from Springtime Campground. Luna Park Campground offers immediate access into the area, as does FS Road 377 (Burma Road). The Luna Park Campground is the only established Forest Service campsite adjacent to the proposed Apache Kid Southern Wilderness Expansion and is located on the east side of the area.

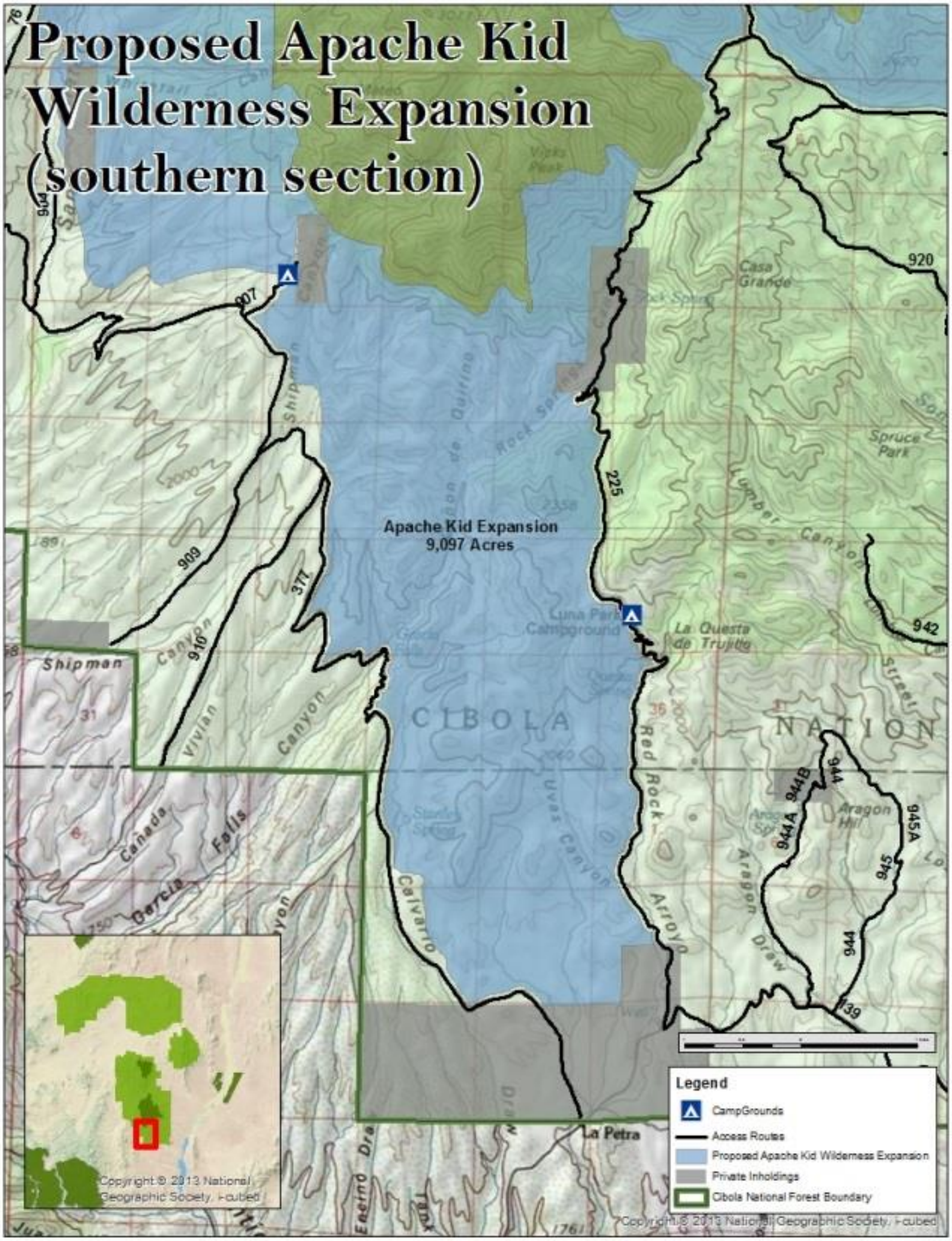
Improvements

Large alligator juniper in East Red Canyon.

The boundary of the southern unit is generally defined by the USFS Inventoried Roadless Area (IRA) immediately south of the Apache Kid Wilderness and includes Cañon de Quirino and Uvas Canyon. Specifically, the boundaries of the unit are defined by Forest Service Road 225 on the east and 377 (Burma Road) on the west.

Nine routes are included within the unit because they do not meet the conditions necessary to disqualify an area per the Forest Service Handbook 1909.12, chapter 70. These routes are described in Appendix C.

In terms of improvements beyond roads, the area does not have any permanent structures, and any occasional signs of human activity like abandoned routes, stock tanks, and fencing, are substantially unnoticeable due to the landscape's rolling topography, canyons, vegetative diversity, natural reclamation, and steep slopes. Photographs of human imprints are provided in Appendix E-1.


Proposed Apache Kid Wilderness Expansion (southern section)
Apache Kid Expansion
9,097 Acres
Luna Park Campground
CIBOLA
NATION
Casa Grande
Spruce Park
Lumber Canyon
La Questa de Trujillo
Red Rock Arroyo
Aragon Draw
Aragon Hill
Shipman
Shipman Canyon
Vivian Canyon
Canyon
Cañada Falls
Garcia
Calvario
Uvas Canyon
La Petra
907
909
910
377
225
920
942
944
944A
944B
945
945A
139
Legend
CampGrounds
Access Routes
Proposed Apache Kid Wilderness Expansion
Private Inholdings
Cibola National Forest Boundary
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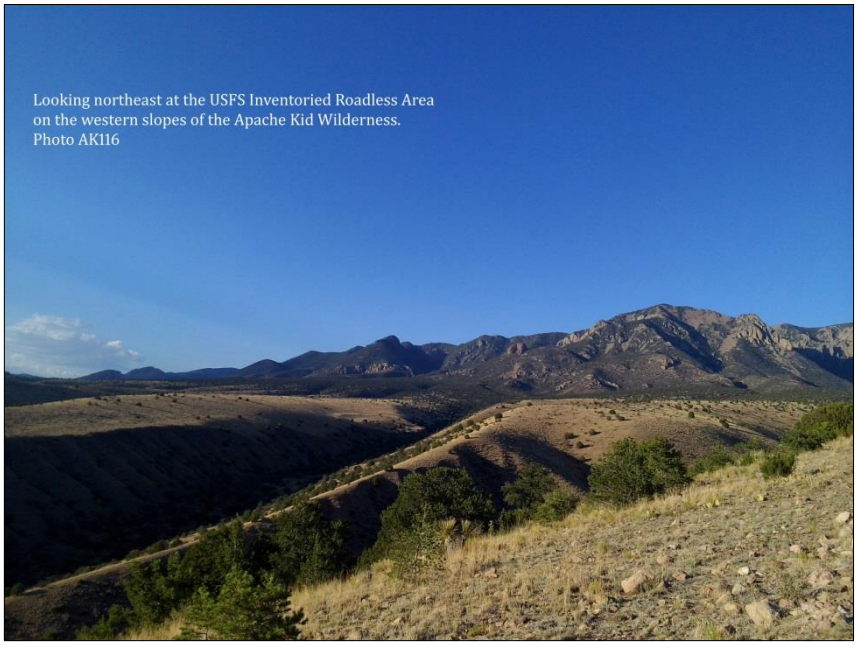
Western Wilderness Expansion

12,080 Acres

Apparent Naturalness

Like the other proposed Apache Kid Wilderness expansion areas, the Apache Kid Western Recommended Wilderness Expansion appears predominantly natural and undeveloped with few scattered imprints of man's presence -- primitive and naturally reclaimed routes, stock tanks, and fencing -- substantially unnoticeable due to the rugged canyons, steep slopes, and vegetation. The presence of large predators like mountain lion and black bear, in addition to healthy herds of mule deer and elk, indicate that human activity and use in the area is not substantial. Plant and animal communities appear natural and ecological conditions appear normal. There are a few Forest Service system routes adjacent to the unit that are generally difficult to travel due to lack of maintenance and the rocky nature of the system roads.

Steep slopes in the eastern portion of the unit pour down into the surrounding canyons, providing for a variety of vegetation, including ponderosa, oak, and all three major juniper types. There is a large variety of grasses including vine mesquite, sideoats grama, blue grama, silver beardgrass, wolftail, needle and thread grass, and burro grass. Other vegetation includes Apache plume, desert spoon stool, narrowleaf yucca, Torrey yucca, pinyon pine, desert holly, scarlet globemallow, purple aster, and penstemon.



Looking northeast at the USFS Inventoried Roadless Area on the western slopes of the Apache Kid Wilderness. Photo AK116

Wildlife habitat is also abundant here. One can find healthy populations of mountain lion, black bear, elk, mule deer, great horned owl, and Mexican spotted owl in addition to countless other species. The San Mateo Mountains are not known for its water resources, but the proposed Apache Kid Western Wilderness Expansion features several fresh water springs.

Outstanding Opportunities for Solitude or Primitive & Unconfined Recreation

Like the other sections of the proposed Apache Kid Wilderness expansion, the western unit offers unparalleled opportunities to experience backcountry recreation. Due to its size, its roadless characteristics, remarkable views, rugged topography, vegetation, and proximity to the Apache Kid Wilderness, the proposed Apache Kid Western Wilderness Expansion possesses outstanding opportunities for

solitude and unconfined or primitive forms of recreation including hiking, camping, backpacking, hunting, and horseback-riding. The area demands self-reliance while rewarding visitors with a memorable adventure.

Maverick Canyon, Kelly Canyon, Holdup Canyon, and San Mateo Canyon all present attractive possibilities for hikers and backpackers to explore the proposed Apache Kid Western Wilderness Expansion. The vegetation common throughout these canyons consists of pinyon juniper and gray oak. Views of the high country around Blue Mountain, San Mateo Mountain and Apache Kid Peak are prominent in the unit. Signs of black bear and elk can be observed within Kelly Canyon and Maverick Canyon. The Forest Service notes in its hiking guide that the San Mateo Trail, which starts in the proposal area and enters into the Apache Kid Wilderness, is very remote, very rough, and primitive, and that solitude is the trail's most attractive feature. The hiking guide also notes that the Maverick Trail, which starts in the proposal area and enters into the Apache Kid Wilderness, is seldom used and also offers a great deal of solitude.

Opportunities to experience backcountry hunting are also rich in the recommended Apache Kid Western Wilderness Expansion. Habitat is plentiful, with well-functioning ecosystems able to sustain healthy herds of elk, mule deer, turkey, and quail. The Rocky Mountain Elk Foundation identified important over-winter range for elk within a small portion of the unit (see Map 12.1). The New Mexico Department of Game and Fish's harvest records

Looking east at the Apache Kid Wilderness and volcanic tuff flows in a USFS Inventoried Roadless Area.
Photo AK118

indicate that Game Management Unit 17, which encompasses the western unit, offers good deer, high quality elk, and excellent turkey hunting (New Mexico Department of Game and Fish Harvest Data).

The area's remoteness and proximity to the Apache Kid Wilderness ensures solitude. Once visitors leave the boundary roads, they experience seclusion and know that they are within a wild place untrammeled by humans and primeval in character.

The scenery found throughout the proposed Apache Kid Western Wilderness Expansion is exceptional, with numerous deep canyons to explore, excellent chances to view wildlife, and an abundance of opportunities to be alone and experience wildness. Furthermore, there is a sense of vastness on a grand scale when in the area, so much so that at night there is a complete lack of light pollution, which offers exceptional stargazing opportunities.

Supplemental Values

There are many special features and values within the proposed Apache Kid Western Wilderness Expansion, starting with the rugged canyons, striking rock formations and high ridges that contrast so dramatically with the surrounding plains. Panoramic views from atop the canyon rims are terrific, as are the sights as one explores the numerous canyons.

Healthy populations of wildlife found throughout the area add to the unit's special character. In our field visits, we observed and saw signs of wildlife including mountain lion, black bear, elk, mule deer, pronghorn, coyote,

Looking east at a USFS Inventoried Roadless Area on the western slopes of the Apache Kid Wilderness. Photo AK117

turkey, quail, great horned owl, and Mexican spotted owl. Kelly Canyon, in particular boasts numerous signs of scat from bear, mountain lion, mule deer, and elk. Signs of quail and wild turkey can also be found throughout the unit.

The proposed western expansion area is important breeding ground for mountain lion (see Appendix A: Map 9.3) and is critical habitat for Mexican Spotted Owl (see Map 10.2). It is within a Nature Conservancy key conservation area due to its species richness and ecological diversity (see Map 8.2), and is considered priority crucial habitat by the New Mexico Department of Game and Fish (see Map 5).

The area is full of historic lore. Notorious Apaches leaders Cochise, Geronimo, and Victorio who lead resistance against America's westward expansion and renegade outlaws Butch Cassidy and the Wild Bunch have ties to the area (Basham, 2011). The grave of the Apache Kid, a notorious Apache warrior, is located in the Apache Kid Wilderness, just to the east of the proposed Apache Kid Western Wilderness Expansion.

Historic artifacts likely exist. The area's heritage resources "are diverse and representative of nearly every prominent human evolutionary event known to anthropology. Evidence of human use of the area date back 14,000 years." (Basham, 2011, p.1).

See the proposal overview for more information on the ecology, cultural significance and human history of the region.


Looking north from a boundary road in the proposed Apache Kid Wilderness Expansion. Photo AK119

Field Data

Field work was conducted throughout the area over the course of five months during the summer and fall of 2012 by traveling Forest Service routes via motorized vehicle, hiking old reclaimed routes that are no longer accessible by the use of a mechanized vehicle, and exploring the numerous canyons on backpacking trips and long day hikes.

All routes traveled were tracked and recorded by using mobile GPS software and taking photo waypoints of wilderness characteristics, as well as photos of the conditions of Forest Service routes and human infrastructure dispersed throughout the area. Appendix E-1 provides a digest of select photographs that demonstrate the wilderness character of the proposal area. Additional photographs, detailed GPS data and field notes are available upon request.

Manageability

The majority of the proposed Apache Kid Western Wilderness Expansion is isolated from areas of human activity, with limited access and very few encumbrances. The area does not have motorized activity occurring within its proposed boundaries. There is one private in-holdings adjacent to the unit and another within the unit that is accessible via road 907. At the time that we wrote this proposal, there were no active or pending mining claims, operations, or leases in the area. The proposal area is 12,080 acres; 10,215 acres - or 90% - overlap with the Apache Kid Contiguous Inventoried Roadless Area (IRA).

Access Information

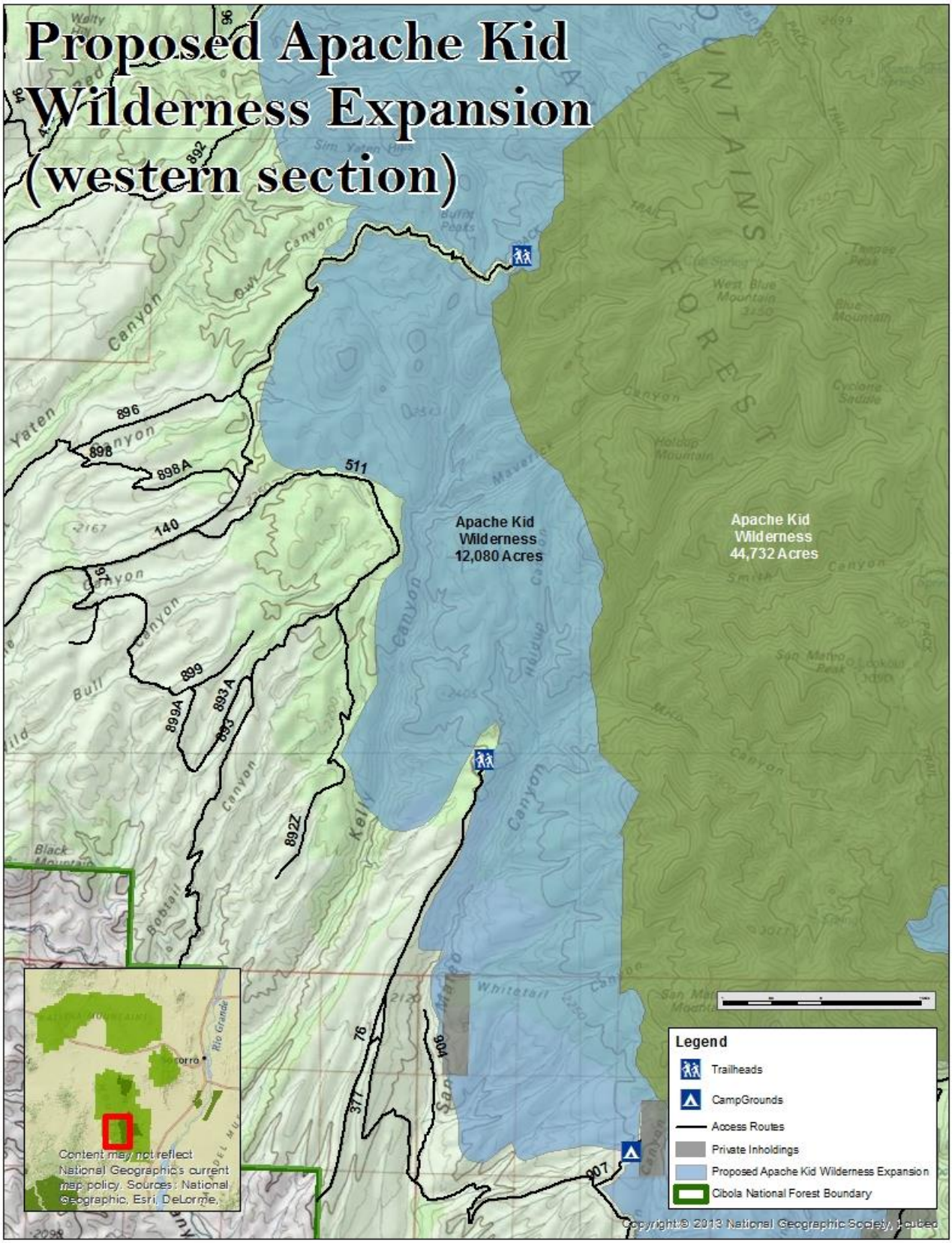
Primary access to the proposed Apache Kid Western Wilderness Expansion is via Forest Service Road 377 (Burma Road) and 140, north of the town of Monticello, NM.

There are no established Forest Service campgrounds adjacent to the proposed Apache Kid Western Wilderness Expansion. However, there are four USFS Trailheads within or adjacent to the unit – San Mateo Canyon, Shipman Canyon, Maverick Canyon, and Post Trail – which all offer easy access for those seeking a primitive experience.

Improvements

The boundary of the western unit is generally defined by the U.S. Forest Service Inventoried Roadless Area immediately west of the Apache Kid Wilderness, and includes Kelly Canyon, San Mateo Canyon, and Holdup Canyon. Forest Service Road 140 is cherry-stemmed. Three routes are included within the unit because they do not meet the conditions necessary to disqualify an area per the draft Forest Service Handbook 1909.12, chapter 70. These routes are described in Appendix C.

In terms of improvements beyond roads, the area does not have any permanent structures, and the occasional signs of human activity, such as abandoned routes, stock tanks, and fencing, are substantially unnoticeable due to the rugged canyons, vegetative diversity, natural reclamation, and steep slopes. Photographs of human imprints are provided in Appendix E-1.


Proposed Apache Kid Wilderness Expansion (western section)
Apache Kid Wilderness 12,080 Acres
Apache Kid Wilderness 44,732 Acres
Legend
Trailheads
CampGrounds
Access Routes
Private Inholdings
Proposed Apache Kid Wilderness Expansion
Cibola National Forest Boundary
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Withington

Recommended Wilderness Expansion

Looking southwest at the White Cap IRA from within the proposed Withington Wilderness Expansion. Photo WW100

Cibola National Forest – Magdalena Ranger District

Withington Wilderness Recommended Expansion

Size

9,926 acres

Area Overview

The Withington Recommended Wilderness Expansion is located immediately east of the Withington Wilderness. Located in the northern portion of the San Mateo Mountains, the topography here is gentler than in the south. The unit comprises several canyons, including the stunning Big Rosa Canyon, as well as Whitecap Canyon. Elevations range from 6,800 feet near Chavez Canyon to 9,800 feet along the northern crest of the San Mateo Mountains. From atop Whitecap Canyon, sweeping vistas unfold to the northeast of the Magdalena Mountains.

The San Mateo Mountains are one of the most remote landscapes that can be explored in the Cibola National Forest. The absence of any significant human development within or near the range has helped to keep the mountains remote and natural.

The scenery found throughout the area is exceptional, with numerous open canyons to explore, high ridge lines with dramatic views and an abundance of opportunities to be alone and experience wildness. Largely due to the size of the area, its roadless characteristics, topography and vegetation, the proposed Withington Recommended Wilderness Expansion provides outstanding hiking, backpacking, hunting and other recreational opportunities for those seeking solitude and a remote, wild experience. It boasts a few springs in the canyon bottoms, as well as a variety of wildlife including mountain lions and black bear.

Looking southwest at the Rio Grande Valley from the White Cap IRA. Photo WW101

The boundaries of the unit are generally defined by the USFS Inventoried Roadless Area immediately east of the Withington Wilderness. Specifically, the boundary is defined by Forest Service Road 138 to the west, and 330 to the south. Forest Service Roads 56 and 1052 are cherry-stemmed.


Proposed Withington Wilderness Expansion
Withington Wilderness
19,000 Acres
Withington Expansion
9,926 Acres
Cooney Windmill
Mount Withington
Chavez
Rosedal
Bell Mine
Grassy Lookout
Legend
Access Routes
Trailheads
Campgrounds
Proposed Withington Wilderness Expansion
Wilderness
Private Inholdings
Cibola National Forest Boundary
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Naturalness

The Withington Recommended Wilderness Expansion appears predominantly natural and undeveloped, with few scattered imprints of man, such as primitive and naturally reclaimed routes, stock tanks, and fencing. These are substantially unnoticeable, however, due to the steep slopes, ridge lines, and vegetative cover. Plant and animal communities appear natural and ecological conditions appear normal.

The area is characterized by deeply incised canyons resulting from the uplift, faulting and weathering of an ancient volcanic cauldron; these canyons are both beautiful and geologically interesting. The panoramic views from atop the canyon rims are spectacular, as are the sights as one walks through the secluded canyons bottoms.

The abundance of wildlife throughout the area gives the feeling of complete naturalness. Habitats found in this area sustain healthy populations of mountain lion, black bear, elk, and mule deer. In 2006, the New Mexico Department of Game and Fish published the Comprehensive Wildlife Conservation Strategy report (NMGF 2006). This report, which collaborated with over 170 public agencies, organizations, and municipalities, identified habitat found in this area as essential Rocky Mountain Montane Mixed Conifer Forest and Woodland.

In our field visits, we observed and saw signs of wildlife including mountain lion, black bear, elk, mule deer, coyote, turkey, and quail. The upper portion of Big Rosa Canyon, in particular, boasts numerous signs of scat from mountain lion,

bear, and elk. A group of seven bull elk were also observed in a canyon north of the Rosedale Camping Area.

The area has a variety of native vegetation, including ponderosa, oak, aspen, spruce, and fir, all three major juniper types, yellow ragweed, purple verbena, sideoats grama, blue grama, burro grass, silver beardgrass, wolftail, and purple threeawn. Very large alligator juniper trees – sometimes reaching upwards of sixty feet – can be found in the unit, particularly near the Whitecap ridgeline.

Outstanding Opportunities for Solitude or Primitive & Unconfined Recreation

Outstanding opportunities for hiking, camping, backpacking, hunting, horseback-riding, and other forms of primitive recreation are excellent in the area given its natural and rugged character, proximity to the Withington Wilderness, high quality habitat, remarkable views, easy access by bounding roads, and size. The area offers visitors adventure and demands self-reliance.

Big Rosa Canyon offers enticing possibilities for hikers and backpackers to explore the heart of the proposed Withington Recommended Wilderness Expansion. The canyon climbs to the southwest, gradually gaining in elevation as it reaches the crest of the San Mateo Mountains. Open meadows, dispersed ponderosa and plains cottonwood are all common within Big Rose Canyon.

The Whitecap ridgeline also offers exceptional opportunities for primitive recreation. For instance, bull elk can be observed bugling throughout the Whitecap ridgeline area; black bear can be spotted foraging on the abundant


A sixty-foot tall alligator juniper tree within the White Cap IRA. Photo WW104

supply of acorns. From atop the Whitecap ridgeline, the views of the Magdalena Mountains to the east are immense and breathtaking. To the south, views of the southern portion of the San Mateo Mountains, including Blue Mountain within the Apache Kid Wilderness, are visible.

Opportunities to experience backcountry hunting are also rich in the area. Habitat is plentiful, with well-functioning ecosystems able to sustain healthy herds of elk and mule deer. The Rocky Mountain Elk Foundation identified important over-winter and calving ranges for elk (see Map 12.1) within the proposal area, and the National Wild Turkey Federation identified the area as habitat for Merriam's turkey (see Map 12.2). The New Mexico Department of Game and Fish's harvest records indicate that Game Management Unit 17, which encompasses the Withington Expansion, offers

good deer, high quality elk, and excellent turkey hunting (New Mexico Department of Game and Fish, 2012).

The area's remoteness and proximity to the Withington Wilderness provide for isolation and solitude. Once visitors leave the boundary roads, they know that they are within a wild place primeval in character. Moreover, there is a sense of vastness on a grand scale when in the area, so much so that at night there is a complete lack of light pollution, which affords exceptional stargazing.

Supplemental Values

The proposed Withington Recommended Wilderness Expansion lies within a volcanic caldron, underlain by ash flow tuffs and lavas dating back to about 24 million years ago. Uplift, faulting and weathering of these rocks during the past 20 million years has resulted in the incision of deep canyons along the flanks of the range.

The steep, northeastern slopes of this range dramatically drop down from the Withington Wilderness into Big Rosa Canyon. The canyon then breaks upward to form the Whitecap ridgeline. The Whitecap ridgeline and surrounding drainages provide for a variety of vegetation, including ponderosa, oak, aspen, spruce, and fir, and all three major juniper types. There is an assortment of grasses and wildflowers, including yellow ragweed, purple verbena, sideoats grama, blue grama, burro grass, silver beardgrass, wolftail, and purple threeawn. Old growth alligator juniper trees are within the area.

The area is also rich with wildlife. Healthy populations of mountain lion, black bear, elk, and mule deer inhabit these mountains. The New Mexico Department of Game and Fish's Comprehensive Wildlife Conservation Strategy identified habitat found in this area as essential Rocky Mountain Montane Mixed Conifer Forest and Woodland (NMDGF, 2006).

The proposal area is important breeding grounds for mountain lion (Appendix A: Map 9.3), and serves as a corridor for mountain lion movement to the north and east (see Map 9.2). The area also encompasses Mexican Spotted Owl critical habitat (see Map 10.2). The area is within a Nature Conservancy key conservation area due to its ecological diversity and species richness (see Map 8.2), and is considered priority crucial habitat by the New Mexico Department of Game and Fish (see Map 5). In terms of game species, the area contains important over-winter and calving ranges for elk (see Map 12.1) and is habitat for Merriam's turkey (see Map 12.2) and mule deer.

Although the San Mateo Mountains are not known for containing considerable quantities of water, the Withington Recommended Wilderness Expansion is unusual in that it features several fresh water springs that contribute to the vitality and abundance of wildlife and add a certain beauty and complexity to the area.

Visitors have a good chance of seeing cultural and historical resources in the area. The heritage resources in the area "are diverse and representative of nearly every prominent human evolutionary event known to anthropology. Evidence of human use in the area date back 14,000 years" (Basham, 2011, at 1). Archaeological sites likely exist. The grave of the Apache Kid, a famous Apache warrior, is located in the Apache Kid Wilderness, just to the south of the proposed Withington Recommended Wilderness Expansion. Outlaw

renegades Butch Cassidy and the Wild Bunch and notorious Apaches like Cochise, Geronimo, and Victorio also have ties to the San Mateos (Basham).

It has been suggested that Major George M. Wheeler, the pioneering explorer and leader of the Wheeler Survey, one of the major surveys of the western United States in the late nineteenth century, named Mount Withington (*Place Names* 381).

See the proposal overview for more information about the cultural significance and human history of the region.

Manageability

The majority of the proposed Withington Recommended Wilderness Expansion is isolated from areas of human activity, with limited access. The area does not have motorized activity occurring within its proposed boundaries. There appear to be no private in-holdings within the unit. At the time that we wrote this proposal, there were no active or pending mining claims, operations, or leases in the area. The proposal area is 9,926 acres; 8,071 acres - or 81% - overlap with the White Cap Inventoried Roadless Area (IRA).

Field Data

Field work was conducted throughout the area over the course of five months during the summer and fall of 2012 by traveling Forest Service routes via motorized vehicle, hiking old reclaimed routes that are no longer accessible

Looking east from a high ridgeline in the proposed Withington Wilderness Expansion.
Photo WW105

by the use of a mechanized vehicle, and exploring the numerous canyons on backpacking trips and long day hikes.

All routes traveled were tracked and recorded by using mobile GPS software and taking photo waypoints of wilderness characteristics, as well as photos of the conditions of Forest Service routes and human infrastructure. Appendix E-6 provides a digest of select photographs that demonstrate the wilderness character of the proposal area. Additional photographs, detailed GPS data and field notes are available upon request.

While the proposal area generally aligns with the Forest Service's CH. 70 wilderness inventory, the boundaries do not align precisely. There appear to be just three blocks of land in our proposal that were not included in the Forest Service's CH. 70 wilderness inventory. Two block of land are located on the east side of the proposal and extend eastward between roads. Based on our field inventory, these lands have wilderness character and the distance between the roads is large enough to justify extending the boundary between them. The third block of land is located on the south side of the proposal. Roads appear to disqualify this land from the agency's wilderness inventory. Based on our field inventory, this land has wilderness character and the distance between roads 1068 and 1052 as it makes the U-shaped curve is large enough to justify extending the boundary between the road. As for the roads that exist within this block of land (1040, 1041, and 1043), see Appendix C for justification about why we included these roads in our proposal and why the agency should not allow these roads to disqualify these lands from being included in its wilderness inventory.

Access Information

Primary access to the proposed Withington Wilderness Expansion is via Forest Service Road 330, south of the town of Magdalena. The Rosedale Camping Area Canyon offers immediate access into the area, as does FS Road 56 and FS Road 138.

Opportunities exist for dispersed camping in Rosedale Canyon and Big Rosa Canyon. Both areas are undeveloped, with no facilities available, and they both provide immediate access to those seeking a primitive, backcountry experience.

Improvements

The boundaries of the unit are generally defined by USFS White Cap IRA immediately adjacent to the Withington Wilderness. Forest Service Road 56, which runs between the existing wilderness area and the proposed expansion, is cherry-stemmed to provide access through Big Rosa Canyon. Road 1052 is also cherry-stemmed. Six roads are included within the unit because they do not meet the conditions necessary to disqualify an area per the draft Forest Service Handbook 1909.12, chapter 70. These routes are described in Appendix C.

In terms of improvements beyond roads, the area does not have any permanent structures, and the occasional signs of human activity, such as abandoned routes, stock tanks, and fencing, are substantially unnoticeable due to the rugged canyons, vegetative cover, natural reclamation, and steep slopes. Photographs of these human imprints are provided in Appendix E-6.

Panther Canyon

Recommended Wilderness Area

Looking south from the headwaters of Spring Hollow Canyon
in the proposed Panther Canyon Wilderness Area.
Photo PC100

Cibola National Forest – Magdalena Ranger District

Panther Canyon Recommended Wilderness

Size

28,917 acres

Area Overview

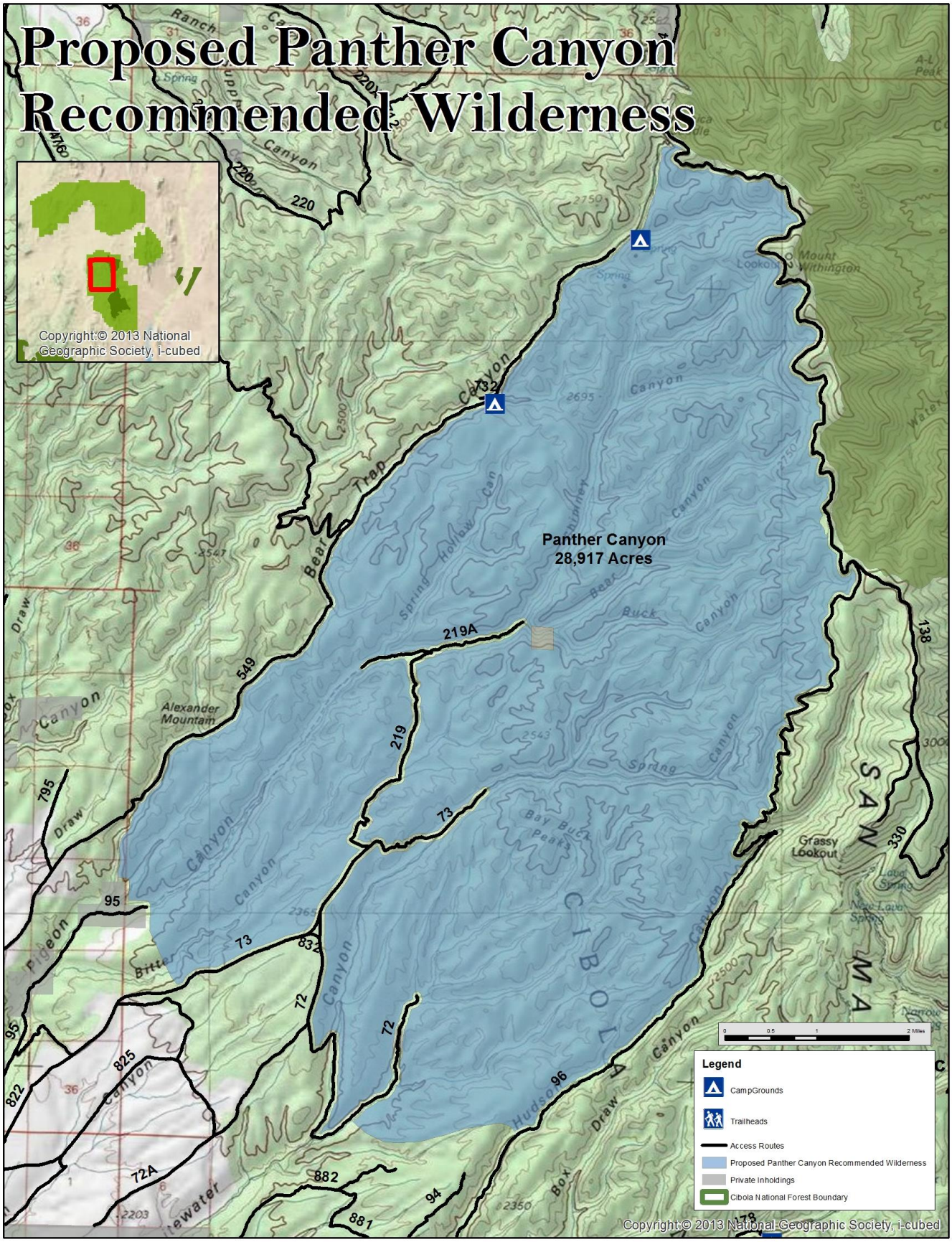
The Panther Canyon Recommended Wilderness Area is located immediately west of the Withington Wilderness, and northwest of the Apache Kid Wilderness in the San Mateo Mountains. The unit comprises numerous canyons, including Panther Canyon, Chimney Canyon, Whitewater Canyon, and Spring Hollow Canyon. Elevations range from 7,200 feet in the lower portion of Big Pigeon Canyon to 9,800 feet along the northern crest of the San Mateo Mountains. Panther Canyon itself is a major tributary on the north side of Chimney Canyon. From atop Panther Canyon, sweeping vistas unfold to the south of Bay Buck Peaks, at an elevation of 8,586 feet.

The San Mateo Mountains are one of the most remote landscapes that can be explored in the Cibola National Forest. The absence of any significant human development within or near the range has helped to keep the mountains remote and natural.

The scenery found throughout the area is exceptional, with numerous open canyons to explore, high ridge lines that offer dramatic views and an abundance of opportunities to be alone and experience wildness. Largely due its size, topography and vegetation, the proposed Panther Canyon Recommended Wilderness Area provides remarkable hiking, backpacking, hunting and other recreational opportunities for those seeking seclusion and challenge. The unit is rich with wildlife including mountain lions and black bear as well as a number of springs in the valley bottoms.

The boundaries of the unit are defined by Forest Service Road 549 to the west, Forest Service Road 138 to the northeast, Forest Service Road 96 to the east and southeast, Forest Service Roads 73 and 72 to the south, as well as private land to the south. Forest Service Roads 219, 219A, 72 and 73 are cherry-stemmed.

Looking north from the lower section of Chimney Canyon at waist high blue grama grass in the proposed Panther Canyon Wilderness Area. Photo PC101


Proposed Panther Canyon Recommended Wilderness
Copyright:© 2013 National Geographic Society, i-cubed
Panther Canyon
28,917 Acres
Alexander Mountain
Grassy Lookout
Mount Withington
Bay Buck Peaks
CIBOLA
SAN MATEO
Legend
CampGrounds
Trailheads
Access Routes
Proposed Panther Canyon Recommended Wilderness
Private Inholdings
Cibola National Forest Boundary
0 0.5 1 2 Miles
Copyright:© 2013 National Geographic Society, i-cubed

Apparent Naturalness


A freshwater spring in the proposed Panther Canyon Wilderness Area.
Photo PC102

Within the area as a whole, plant and animal communities appear natural and ecological conditions appear normal. The area is undeveloped, with the few scattered imprints of man – such as primitive and naturally reclaimed routes, stock tanks, and fencing – substantially unnoticeable due to the rugged canyons, steep slopes, and vegetative cover. The presence of large predators, such as mountain lion and black bear, in addition to healthy herds of mule deer and elk, indicate that human activity in the area is relatively insubstantial. There are a number of old tracks in the unit that are entirely impassible due to severe washout, erosion, large downed-trees, and natural rehabilitation. Very little, if any, evidence of dispersed camping off of these old routes exists.

The area has a variety of native vegetation, including ponderosa, oak, aspen, spruce, and fir, and all three major juniper types. There is a large variety of grasses and wildflowers including yellow ragweed, purple verbena, sideoats grama, blue grama, burro grass, silver beardgrass, wolftail, and purple threeawn. There are few non-native species within the unit.

The area also enjoys an abundance of wildlife. The type of habitat found in this area sustains healthy populations of mountain lion, black bear, elk, and mule deer in the mountain range. In our field visits, we observed and saw signs of wildlife including mountain lion, bear, elk, mule deer, coyote, turkey, and quail. Keeping a keen eye on the ground, scat from mountain lion, bear, and elk can be spotted throughout Chimney Canyon and Whitewater Canyon. A herd of sixty elk, with scores of calves, were also observed in the rolling hill country south of Bay Buck Peaks.

Looking north from within Whitewater Canyon at large oak stands in the proposed Panther Canyon Wilderness Area. Photo PC103

Significant oak stands – in some instances reaching over forty feet in height – are common in the canyon bottom. Bull elk can be heard bugling within Whitewater Canyon, and black bear can be spotted foraging on the abundant supply of acorns.

Opportunities to experience backcountry hunting are also rich in the proposal area. Habitat is plentiful, with well-functioning ecosystems able to sustain healthy herds of elk and mule deer. The Rocky Mountain Elk Foundation identified important over-winter and calving ranges for elk within the proposal area (see Map 12.1), and the National Wild Turkey Federation identified the area as habitat for Merriam's turkey (see Map 12.2). The New Mexico Department of Game and Fish's harvest records indicate that Game Management Unit 17, which encompasses the proposed Panther Canyon area, offers good deer, high quality elk, and excellent turkey hunting (New Mexico Department of Game and Fish, 2012).

The area's remoteness and proximity to the Withington Wilderness creates an elevated feeling of isolation and solitude. Once visitors leave the boundary roads, they experience complete solitude and know that they are within a wild place, untrammeled by humans and primeval in character.

Outstanding Opportunities for Solitude or Primitive & Unconfined Recreation

Outstanding opportunities for hiking, camping, backpacking, hunting, horseback-riding, and other forms of primitive and unconfined recreation are excellent in the area given its natural and rugged character, high quality habitat, remarkable views, easy access by bounding roads, and size. The area offers visitors adventure and demands self-reliance.

Chimney Canyon offers enticing possibilities for hikers and backpackers to explore the other seldom visited canyons to the east, which all gradually gain in elevation as the canyons reach the crest of the northern half of the San Mateo Mountains. Large ponderosa trees can be found throughout Chimney Canyon, alongside thick stands of undulating blue grama grasses. Whitewater Canyon affords equally exceptional opportunities for primitive recreation.

Looking north at the headwaters of Chimney Canyon along a high ridgeline.
Photo PC104

There is a sense of vastness on a grand scale when in the area, so much so that at night there is a complete lack of light pollution, which offers exceptional stargazing.

From atop the various canyon rims, views to the west are immense and breathtaking. The Plains of San Agustin can be seen unfolding to the north off the northern reaches of the Gila National Forest. To the south, views of the southern portion of the San Mateo Mountains, including Blue Mountain within the Apache Kid Wilderness, are visible, as is the northern section of the Black Range.

Supplemental Values

The Panther Canyon Recommended Wilderness Area is within a volcanic caldron and underlain by ash flow tuffs and lavas dating back to about 28 to 24 million years ago. The most spectacular of these deposits is the Vick's Peak tuff, the 1,000-foot high cliffs forming the southernmost escarpment of the range. Uplift, faulting and weathering of these rocks during the past 20 million years has resulted in the incision of deep canyons along the flanks of the range.

Steep slopes in the northeastern portion of the area cascade down into the area's canyons, providing for a variety of native vegetation, including ponderosa, oak, aspen, spruce, and fir, and all three major juniper types. There is a large variety of grasses and wildflowers s noted in the naturalness section. The area also boasts an abundance of wildlife. The area's habitat

Looking west at the proposed Panther Canyon Wilderness Area from a high ridgeline in the San Mateo Mountains. Photo PC105

sustains healthy populations of mountain lion, black bear, elk, and mule deer.

The proposed Panther Canyon Recommended Wilderness Area is important breeding ground for mountain lion (see Appendix: Map 9.3) and serves as a corridor for mountain lion movement to the north and west (see Map 9.2). The area also encompasses several thousand acres of critical habitat for Mexican Spotted Owl (see Map 10.2). It is within a Nature Conservancy key conservation area due to its species richness and ecological diversity (see Map 8.2), and is considered priority crucial habitat by the New Mexico Department of Game and Fish (see Map 5).

In 2006, the New Mexico Department of Game and Fish published the Comprehensive Wildlife Conservation Strategy report. This report, which collaborated with over 170 public agencies, organizations, and municipalities, identified habitat found in this area as essential Rocky Mountain Montane Mixed Conifer Forest and Woodland (New Mexico Department of Game and Fish 2006).

The San Mateo Mountains are not known for containing considerable quantities of water, yet the proposed Panther Canyon Recommended Wilderness Area features several fresh water springs that are not delineated on available maps. These springs undoubtedly help to contribute to the health and vitality of the many wildlife species common throughout the area.

There exists a high potential to see cultural and historical resources in the area. The heritage

resources in the area "are diverse and representative of nearly every prominent human evolutionary event known to anthropology. Evidence for human use in the area date back 14,000 years" (Basham, 2011 at 1). Archaeological sites likely exist. The grave of the Apache Kid, a famous Apache warrior, is located in the Apache Kid Wilderness, just to the southeast of the proposed Panther Canyon Recommended Wilderness Area. Outlaw renegades Butch Cassidy and the Wild Bunch and notorious Apaches like Cochise, Geronimo, and Victorio also have ties to the San Mateos (Basham).

See the proposal overview for more information about the cultural significance and human history of the region.

Manageability

The majority of the proposed Panther Canyon Recommended Wilderness Area is isolated from areas of human activity, with limited access and very few encumbrances. The area does not have motorized activity occurring within its proposed boundaries. At the time that we wrote this proposal, there were no active or pending mining claims, operations, or leases in the area.

There is one small private in-holding within the unit, at the end of FS Route 219A; however, the route is in extremely poor condition due to lack of maintenance, numerous washouts, downed trees, and is overgrown with vegetation up to two feet high in places. It appears that Route 219A receives little to no use from recreational users or the private property owner due to route's condition and lack of dispersed recreational campsites stemming off of the route.

Field Data

Field work was conducted throughout the area over the course of five months during the summer and fall of 2012 by traveling FS routes via motorized vehicle, hiking old reclaimed routes that are no longer accessible by the use of a mechanized vehicle, and exploring the numerous canyons on backpacking trips and long day hikes.

All routes traveled were tracked and recorded by using mobile GPS software and taking photo waypoints of wilderness characteristics, as well as photos of the conditions of Forest Service Roads and human infrastructure dispersed throughout the area. Appendix E-4 provides a digest of select photographs that demonstrate the wilderness character of the proposal area. Additional photographs, detailed GPS data and field notes are available upon request.

While the proposal area generally aligns with the Forest Service's CH. 70 preliminary wilderness inventory, the boundaries do not align precisely. After closely reviewing the agency's wilderness inventory maps, we conclude that the roads system is the key reason for the difference. Appendix C provides justification for each road regarding why we are cherry-stemming or including the road in our proposal. The information in this appendix will clarify why our boundary differs from the agency's inventory.

Access Information

Access to the proposed Panther Canyon Recommended Wilderness Area is via FS Road 549, southwest of the town of Magdalena. Hughes Miles Trail offers immediate access into the area, as does FS Roads 219, 72, and 73.

There are currently two established Forest Service campgrounds adjacent to the proposed Panther Canyon Recommended Wilderness Area. Bear Trap Canyon Campground and Hughes Mill Campground are both located on the west side of the area, providing immediate access to those seeking a primitive, backcountry experience.

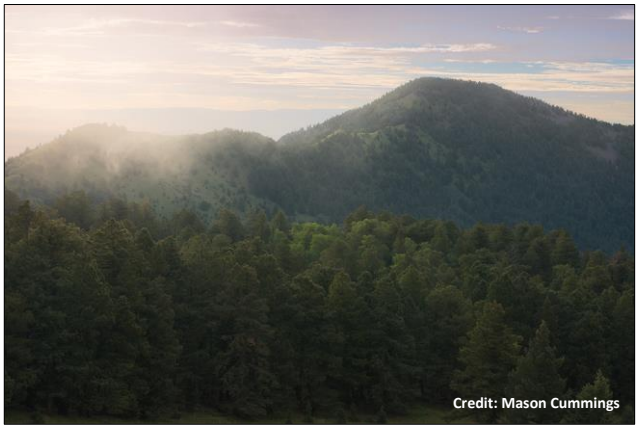
Improvements

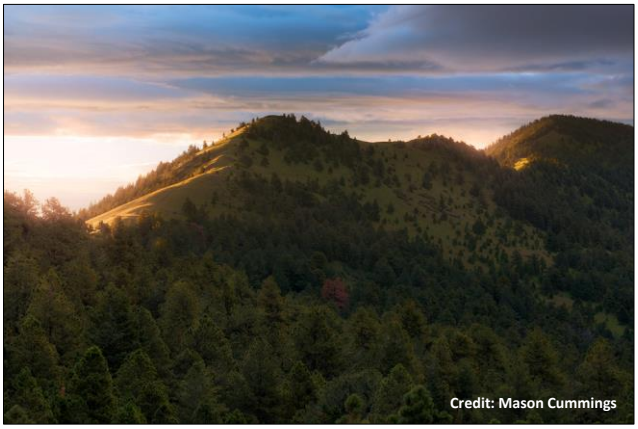
The boundaries of the unit are defined by Forest Service Road 549 to the west, Forest Service Road 138 to the northeast, Forest Service Road 96 to the east and southeast, Forest Service Roads 73 and 72 to the south, as well as private land to the south. Forest Service Roads 219, 219A, 72 and 73 are cherry-stemmed. Twenty-one roads are included within the unit because they do not meet the conditions necessary to disqualify an area per the Forest Service Handbook 1909.12, chapter 70. These routes are described in Appendix C.

In terms of improvements beyond roads, the area does not have any permanent structures, and the occasional signs of human activity, such as abandoned routes, stock tanks, vegetation treatments and fencing, are substantially unnoticeable due to the rugged canyons, vegetative cover, natural reclamation, and steep slopes. Photographs of these human imprints are provided in Appendix E-4.

Magdalena Mountains

Recommended Wilderness Area





Cibola National Forest – Magdalena Ranger District

Magdalena Mountains Recommended Wilderness

Size

49,175 acres

Area Overview

The Magdalena Mountains Recommended Wilderness Area is located approximately twenty miles west of the town of Socorro, NM above the Rio Grande Valley. The unit comprises several major canyons, including Sixmile Canyon, South Canyon, and the east and west forks of Sawmill Canyon. Other major drainages in the unit include Milligan Gulch, Ryan Hill Canyon, and Copper Canyon. Elevations range from the soaring Timber Peak at 10,510 feet to 6,800 feet at the bottom of South Canyon.

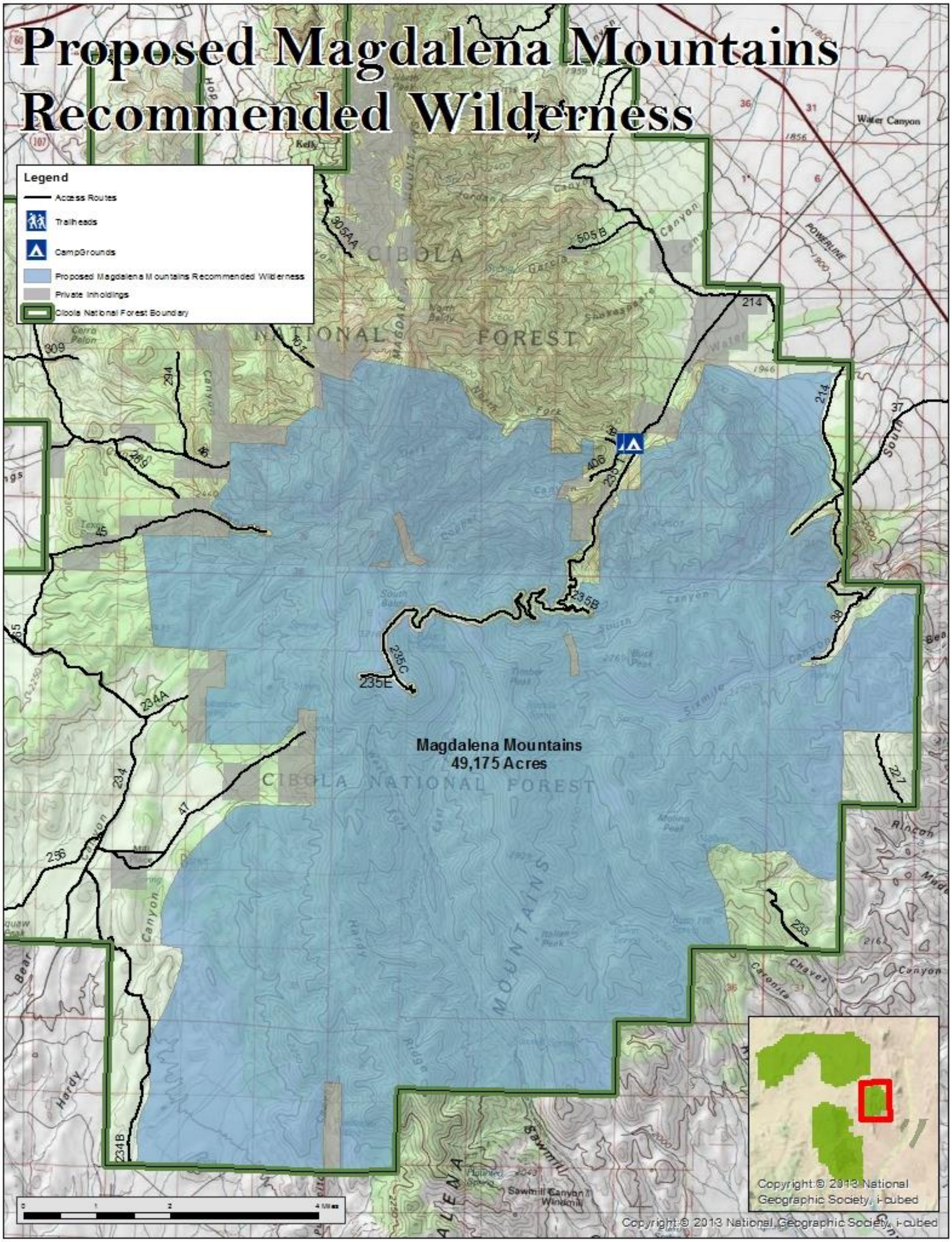
The Magdalena Mountains take their name from Magdalena Peak and were named after Mary Magdalene.[i] The Magdalena mountain range is approximately 18 miles long and is a fairly remote landscape that can be explored within the Cibola National Forest. The absence of any significant human development within or near the range has helped to keep the mountains isolated and natural.

The scenery found throughout the area is exceptional, with numerous secluded canyons to explore, towering ridge lines that afford dramatic views and an abundance of opportunities for solitude and experience wildness. Largely due to the size of the area, topography, vegetation, and brilliant night sky, the Magdalena Mountains Recommended Wilderness Area provides remarkable hiking, backpacking, hunting, star gazing, and other recreational opportunities for those seeking remote and wild experiences. It boasts a variety of wildlife including mountain lions and black bear as well as a number of springs in the valley bottoms.

The Devil's Backbone and Devil's Reach Wilderness Study Areas, both managed by the Bureau of Land Management (BLM), are immediately adjacent to the proposed Magdalena Mountains Recommended Wilderness Area. The size of the combined Forest Service and BLM roadless areas is 58,775 acres.

The boundaries of the unit are defined by the congressionally-designated Langmuir Research Site, with additional acreage to the south and north of FS Road 235 as it ascends Water Canyon, as well as lands west of the research site. FS Roads 235, 235B, 235C, 235E, 37, 38, and 45 are cherry-stemmed. The principle research facility that is located just south of South Baldy Peak is excluded from the area.

Looking southeast at the Rio Grande Valley from within the proposed Magdalena Mountains Wilderness Area. Photo MM101


Proposed Magdalena Mountains Recommended Wilderness
Legend
Access Routes
Trailheads
CampGrounds
Proposed Magdalena Mountains Recommended Wilderness
Private Inholdings
Cibola National Forest Boundary
Magdalena Mountains
49,175 Acres
CIBOLA NATIONAL FOREST
0 1 2 4 Miles
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Apparent Naturalness

Looking north from the Timber Peak Trail within the proposed Magdalena Mountains Wilderness Area. Photo MM102

The Magdalena Proposed Wilderness Area appears predominantly natural and undeveloped, with the scattered imprints of man substantially unnoticeable. Plant and animal communities appear natural and ecological conditions appear normal. The establishment of the Langmuir Research Site by Congress in 1980 has helped to preserve the area's overall naturalness. Public Law 96-550 specifically outlined that "roads shall be limited to those necessary for scientific research activities," and that "motor vehicle use shall be restricted to roads designated in the plan." The management prescriptions from this legislation have been effectively enforced, and have helped to prevent degradation within the area.

The scattered imprints of human activity, such as primitive and naturally reclaimed routes, stock tanks, and fencing, are substantially unnoticeable due to the rugged canyons, vegetative diversity, and steep slopes. In fact, seventy-two percent of the area has slopes in excess of 40 percent. There are a number of old Forest Service system routes in the unit that are closed to motorized use, and most of these old routes have naturally rehabilitated. Old prospects and mining adits dot the mountains from the days when Magdalena was a mining town. Most of these impacts are barely evident today, even up close, because many are collapsed, covered by plant growth, and located in canyons where the topography screens them. Very little evidence of dispersed camping exists in the unit. Non-native species are rare.

The variations in elevation provides for a large diversity of vegetative types. Scrubland, pinyon-juniper woodland, ponderosa pine forest, spruce-fir forest, grassland, and riparian areas are all represented. Grasses include black and sideoats grama, poverty threeawn, fluffgrass, burrograss, and galleta grass at the lower elevations. Higher up, grass species include blue

and hairy grama, little blue stem, and Arizona fescue. Large aspen stands can be found throughout the unit, in addition to ponderosa, spruce and Douglas-fir. Shrubs that are mixed in the grasslands include sotol, cholla, yucca, Apache plume, mountain mahogany, shrub live-oak, gambel oak, and alligator juniper.

The Area contains a variety of high-quality habitats, which is a primary reason that an abundance of wildlife exists in the area. Observations and signs of mountain lion, pronghorn, mule deer, black bear, coyote, red and gray fox, were all surveyed in the field. Bird species common to the region include bald and golden eagle, prairie falcon, kestrel, Mearn's quail, and species of hawks and owls.

Outstanding Opportunities for Solitude or Primitive & Unconfined Recreation

Outstanding opportunities for hiking, camping, backpacking, hunting, horseback-riding, star-gazing and other forms of primitive recreation are excellent in the area given its natural and rugged character, high-quality habitat, remarkable views, breath-taking night sky, easy access by bounding roads, and size. The area offers visitors adventure and solitude, and demands self-reliance.

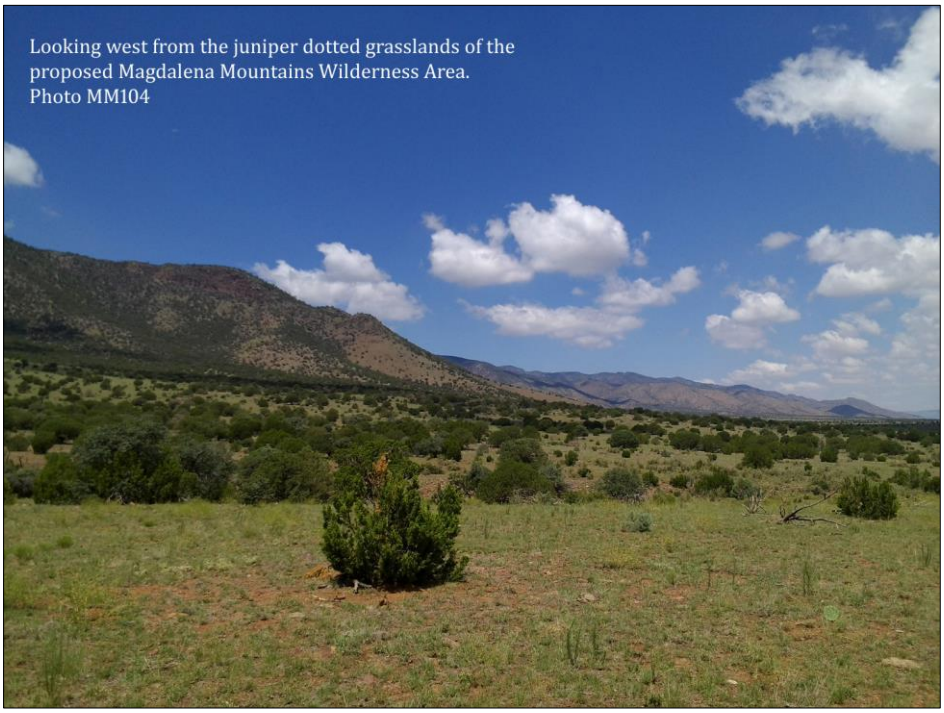
Both Sixmile Canyon and South Canyon offer outstanding possibilities for hikers and backpackers to explore the heart of the area, as well as the opportunity to summit some of the

Looking southwest along the Timber Peak Trail at an aspen grove in the proposed Magdalena Mountains Wilderness Area. Photo MM103

tallest peaks in the range. Large ponderosa trees, stands of quaking aspens, and large meadows can be found throughout this area. As the canyons climb upward, they can become quite steep, making traveling to the peak very challenging. Many scenic rock formations form the canyon walls along Six Mile Canyon Trail. Ryan Hill Canyon and Sawmill Canyon equally afford exceptional opportunities for primitive recreation. Hikers on Ryan Hill Trail will encounter an Arizona Alder designated a National Champion Big Tree near Italian Spring. Interesting rock formations are found on both sides of the trail along the bottom of Sawmill Canyon.

Opportunities to backcountry hunt and view wildlife are rich in the area. The habitat found in the proposal area is plentiful, with well-functioning ecosystems able to sustain healthy herds of elk and mule deer. Bull elk were observed throughout Sawmill Canyon, and black bear was observed near Italian Peak. The Rocky Mountain Elk Foundation identified important over-winter and calving ranges for elk within the proposal area (see Map 12.1), and the National Wild Turkey Federation identified the area as habitat for Merriam's turkey (see Map 12.2). The New Mexico Department of Game and Fish's harvest records indicate that Game Management Unit 17, which encompasses the Magdalena Mountains, offers good deer, high quality elk, and excellent turkey hunting (New Mexico Department of Game and Fish Harvest Data).

Excellent views of the San Mateo Mountains to the west and Sawmill Canyon and Timber Ridge to the east can be found all along Hardy Ridge Trail. The Forest Service remarks in its hiking guide that "due to the undeveloped nature of the trail itself, and its remote location, the trail imparts quite a feeling of solitude." All along the Timber Peak Trail, one is afforded grand views on all sides. This trail follows the highest ridge in the southern portion of the Magdalena Mountains and has some of the best views available in the mountain range. The Sierra Ladrones Wilderness Study Area can be seen jutting out of the basin floor to the north, while the hulking San Mateo Mountains unfold to the southwest. To the east the Rio Grande Valley can be seen stretching from the towns of Socorro all the way to Truth or Consequences. On clear days, the vistas seem to stretch on indefinitely – allowing the viewer to observe the White Mountain Wilderness in south-central New Mexico over 100 miles away. Views of



Looking west from the juniper dotted grasslands of the proposed Magdalena Mountains Wilderness Area. Photo MM104

distant peaks such as Sierra Blanca, Mt. Taylor, the Sandia, Manzano, and Jemez Mountains are plentiful along the North Baldy Trail. Hiking along Copper Canyon Trail, one will encounter a variety of interesting tree species, such as walnut, boxelder, cottonwood, and alder, in the bottom of Copper Canyon due to the water flow.

Once visitors leave the boundary roads, they experience complete solitude and know that they are within a place untrammeled by humans and primeval in character. The adjacent BLM Devil's Backbone and Devil's Reach Wilderness Study Areas add to the area's isolation and solitude, as do the night skies that offer exceptional stargazing. Public Law 96-550; 94 STAT. 3221, which designated the Langmuir Research site, refers to the "high altitude and freedom from air pollution and night luminosity caused by human activity" as one of the qualities that makes the site uniquely suited for "atmospheric and astronomical research purposes."

Supplemental Values

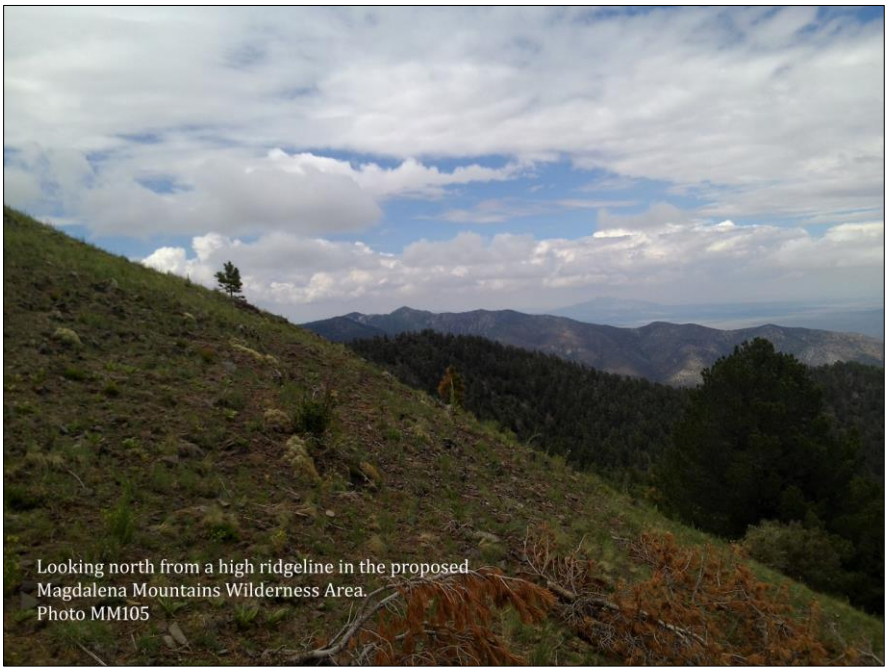
In addition to those supplemental values mentioned above, there are many special other features and values within the proposed Magdalena Mountains Recommended Wilderness Area.

The Magdalena Mountains are part of the basin and range formation. The uplifted halves of east-tilted blocks form the crest of this mountain. These blocks are superimposed on giant volcanic collapse structures (calderas) that formed 29-32 million years ago in the Oligocene time period. During that time, these structures were as much as 12 miles across. As the Earth's

crust has extended in the last 28 million years, the blocks have tilted upward, causing portions within them to break and tilt at even greater angles. This complex geological past is what today makes the scenery of the Magdalena Mountains so breathtaking, and an interesting place to explore. The jagged rock formations in the unit are unusual and eye-catching, and make the mountain distinct from the surrounding landscape.

The proposed Magdalena Mountains Recommended Wilderness Area contains a variety of high-quality habitats. Observations and signs of mountain lion, pronghorn, mule deer, black bear, coyote, red and gray fox, were all surveyed in the field. Although not spotted in the field, desert bighorn sheep are also found in the Magdalenas. They were reintroduced in 1997 after having been hunted to extinction in the mountains by around 1900.

The proposal area encompasses several thousand acres of Mexican Spotted Owl critical habitat (See Appendix A: Map 10.3). It is important habitat for mountain lion (see Map 9.4), serves as a corridor for mountain lion movement to the east and west (see Map 9.2), and is considered important for species movement across the landscape (see Map 6). The proposal area is within a Nature Conservancy key conservation area due to its ecosystem diversity and species richness (see Map 8.2), and is considered priority crucial habitat by the New Mexico Department of Game and Fish (see Map 5).



Looking north from a high ridgeline in the proposed Magdalena Mountains Wilderness Area.
Photo MM105

"In mid- to late-summer, during New Mexico's monsoon season, electrically-charged thunderheads build over the Magdalenas, and some explode in lightning over South Baldy peak, famous among meteorologists for frequency of lightning strikes" (Julyan, 2006, p. 285). The area is also known among professional and amateur astronomers alike for its starry breathtaking night sky. The designation of the Langmuir Research Site, which is a multi-use research facility that studies both atmospheric and astrophysics, is testimony to the outstanding opportunities for scientific research in the unit.

There also exists a high potential to see cultural resources. Prehistoric people have used the Magdalena Mountains for thousands of years, yet little is known about the area; archaeological sites likely exist. The area around the Magdalena Mountains boomed with small towns from around 1890 to the 1950's as minerals were taken out of the mountains. As the minerals were depleted and the markets

changed, most of these towns were abandoned. Only the town of Magdalena itself still exists today, providing a quiet get-away for those seeking a visit to New Mexico's natural environment.

See the proposal overview for more information on the ecology, cultural significance and human history of the region.

Manageability

The majority of the proposed Magdalena Mountains Recommended Wilderness Area is isolated from areas of human activity, with limited access and very few encumbrances. The area does not have motorized activity occurring within its proposed boundaries.

Access to the Langmuir Research Site and its facilities will remain open under the proposed Magdalena Mountains Recommended Wilderness Area. The access routes and facilities themselves will be cherry-stemmed. Based on a conversations with staff at the Langmuir lab, recommending the area for wilderness would not interfere with activities allowed under the University's special use permit.

At the time that we wrote this proposal, there are no active or pending mining claims, operations, or leases in the area. There are three private in-holdings, and four cherry-stemmed roads. The proposal area is 49,176 acres; 33,173 acres - or 67% - overlap with the Ryan Hill Inventoried Roadless Area (IRA).

Field Data

Field work was conducted throughout the area over the course of five months during the summer and fall of 2012 by traveling Forest Service routes via motorized vehicle, hiking old reclaimed routes that are no longer accessible by the use of a mechanized vehicle, and exploring the numerous canyons on backpacking trips and long day hikes.

All routes traveled were tracked and recorded by using mobile GPS software and taking photo waypoints of wilderness characteristics, as well as photos of the conditions of Forest Service routes and human infrastructure dispersed throughout the area. Appendix E-3 provides a digest of select photographs that demonstrate the wilderness character of the proposal area.

While the proposal area generally aligns with the Forest Service's CH. 70 wilderness inventory, the boundaries are not completely identical. There appears to be one block of land in our proposal that was not included in the agency's wilderness inventory. The land at issue is located on the southern end of the proposal area at T5S R4W S1, 2, 10, 11, and 12 and T5S R3W S6 and 7. There is only one road (NFS 247) in the area and it is outside of the proposal area. The southern boundary for Magdalena proposal area follows the boundary for the Langmuir Research Site. Two BLM WSAs are contiguous to our proposal area in this same vicinity. It is unclear why the agency's inventory did not include these lands.

Access Information

Primary access to the area is via Forest Service Road 235. Water Canyon Campground provides easy access to would-be explorers, as does Forest Service Road 37 and Forest Service Roads 235B, 235C, and 235E.

There are currently two Forest Service campsites located immediately adjacent to the proposal area. Both the Water Canyon Campground and Group Campground sites are

located on the north side of the area, providing immediate access to those seeking a primitive experience. There are also several designated non-motorized trails in the area.

Improvements

The boundaries of the unit are generally defined by the congressionally designated Langmuir Research Area, with additional acreage to the south and north of FS Road 235 as it ascends Water Canyon. Lands to the north of FS Road 235, including Copper Canyon, are also within the boundary, as are other lands west of the research site and south of FS Road 45. FS Roads 235, 235B, 235C, 235E, 37, 38, and 45 are cherry-stemmed.

Four roads are included within the unit because they do not meet the conditions necessary to disqualify an area per the draft Forest Service Handbook 1909.12, chapter 70. These routes are described in Appendix C.

The principle research facility, including all associated facilities, are outside of the proposed area. In terms of improvements beyond roads, the area does not have any permanent structures, and the occasional signs of human activity, such as abandoned routes, stock tanks, and fencing, are substantially unnoticeable due to the rugged canyons, vegetative diversity, natural reclamation, and steep slopes. Photographs of these human imprints are provided in Appendix E-3.

[i] The Magdalena Mountains take their name from Magdalena Peak. On the east slope of Magdalena Mountain are rocks and shrubbery supposedly resembling the profile of Mary Magdalene. The face is said to have become less distinct when the drought of 1950-52 killed many of the shrubs outlining the face. A popular but apocryphal legend is that a group of Mexicans were besieged by Apaches on the mountain, when the face of Mary Magdalene miraculously appeared, frightening the Indians away, while another tradition says an early Spanish priest named the mountains in her honor. And equally apocryphal legend says no murder can be committed in the presence of Mary Magdalene's countenance (*Place Names 217*).

Datil Mountains

Recommended Wilderness Area

Looking south at the Madre Mountain IRA from within the proposed Northern Datil Mountains Wilderness Area.
Photo DM100

Cibola National Forest – Magdalena Ranger District

Datil Mountains Recommended Wilderness

Size

61,105 acres

Area Overview

The Datil Mountains Recommended Wilderness Area is located just north of the town of Datil in Catron County. The area is divided into two separate units: Datil Mountains South and Datil Mountains North. The Units are separated by Road 14. The area includes the major ridgeline of Madre Mountain, which is sacred ground to the Acoma, Laguna, and Zuni tribes, as well as several other unnamed peaks and ridges (Basham, 2011). Other major features include Main Canyon, Ox Spring Canyon, and Thompson Canyon. Elevations in both units are approximately 8,000 feet, with Madre Mountain topping out at 9,556 feet.

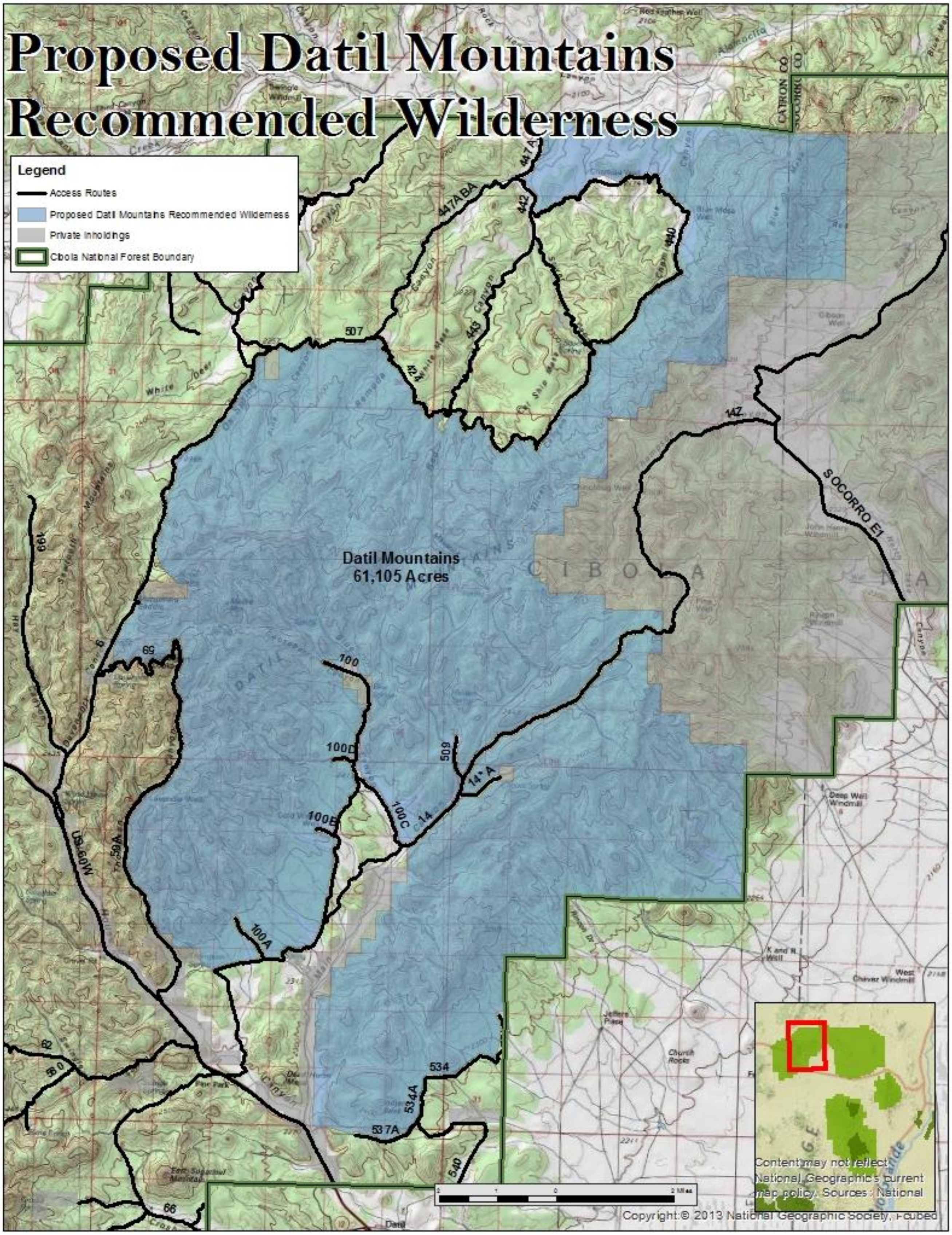
The Datil Mountains are an isolated landscape within the Cibola National Forest. The absence of any significant human development within or near the range has helped to keep the mountains remote and natural.

The scenery found throughout the area is alluring, with significant geological features, numerous open meadows to explore, and dramatic ridgelines that offer exceptional views. The chance to experience the southwest's humbling silence and wild nature abound. Largely due to the size of the two areas, isolation from human activity, topography and vegetation, the proposed Datil Mountains Recommended Wilderness provides remarkable hiking, backpacking, hunting, climbing, and other recreational opportunities for those seeking a wilderness experiences. It boasts a variety of wildlife including elk, mule deer, black bear, and various raptor species.

The boundaries of both units are generally defined by the Madre Mountain and Datil Inventoried Roadless Areas (IRAs), with additional acreage to the south and north of Madre Mountain, as well as lands to the north of the Datil IRA.

Specifically, the boundaries of the Datil Mountains North Unit are defined by all lands east of Thompson Canyon, acreage northwest of Road 14, and land south of Roads 507 and 424. Road 100 is cherry-stemmed, along with authorized roads that branch off of it. The boundaries of the Datil Mountains South Unit are specifically defined by all lands south of Road 14. FS Road 14*A leads to a private in-holding and is cherry-stemmed.

Looking southeast at the Madre Mountain IRA from within the proposed Northern Datil Mountains Wilderness Area. Photo DM101


Proposed Datil Mountains Recommended Wilderness
Legend
Access Routes
Proposed Datil Mountains Recommended Wilderness
Private Inholdings
Cibola National Forest Boundary
Datil Mountains
61,105 Acres
CATRON CO
SOCORRO CO
SOCORRO E1
C I B O L A
507
447ABA
447A
442
440
443
472
14Z
69
100
100D
100B
100C
100A
509
14
14A
534
534A
537A
540
62
66
US 60W
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Apparent Naturalness

The proposed Datil Mountains Wilderness Area appears predominantly natural and undeveloped, with the scattered imprints of man substantially unnoticeable. Plant and animal communities within the unit appear natural and ecological conditions appear normal.

The Datil Mountains are a small range on the northern edge of the Datil-Mogollon Volcanic Field, just northwest of the Plains of San Agustin. The vistas within the Datil Mountains Recommended Wilderness Area reveal an expansive and natural landscape with steep-sided hills cloaked with dense conifer forest. The crest of Davenport Lookout offers exceptional views of an expansive and natural landscape; jagged rock spires and craggy country are common throughout the area. Even more striking is the view from the east, where a huge fault scarp has created a fortress wall of vertical cliffs. To the west, the jagged Sawtooth Mountains rise like gothic castles with intricately carved peaks and towering formations.

There are a number of old Forest Service system routes in both units that the agency identified in its recent Travel Analysis as decommissioned and closed to motorized use. Most of these old routes have naturally rehabilitated and hence do not disrupt the natural appearance of the landscape.

The Datil Mountains Recommended Wilderness Area contains a variety of high-quality habitats,

Looking east at the Madre Mountain IRA from Forest Road 6.
Photo DM102

which is a primary reason the area is rich with wildlife. Scrubland, pinyon juniper woodland, ponderosa pine forest, deciduous oak and grassland areas are all represented in both units. Plant species are predominantly native. Grasses include black and sideoats grama, poverty threeawn, burrograss, and galleta grass at the lower elevations. Higher up, grass species include blue and hairy grama, and little blue stem. Shrubs include sotol, cholla, yucca, Apache plume, mountain mahogany, shrub live-oak, gambel oak, and alligator juniper.

Observations and signs of elk and mule deer, as well as Merriam's turkey, black bears, bobcats, coyotes, foxes, and quail were surveyed in the field. Bird species common to the region include: bald and golden eagles, prairie falcon, kestrel, Merriam turkey, and many species of quails, hawks and owls.

Outstanding Opportunities for Solitude or Primitive & Unconfined Recreation

Outstanding opportunities for hiking, camping, backpacking, hunting, rock climbing, horseback riding and other forms of primitive, dispersed recreation are excellent in the area given its natural and rugged character, quality habitat, remarkable views, and size. The area offers visitors adventure and solitude, and demands self-reliance. The proposed Datil Mountains Recommended Wilderness Area does not have any developed facilities or designated trails in either unit, which provides exciting opportunities for exploration and challenge.

Looking west at the Sawtooth Mountains from within the Madre Mountain IRA
Photo DM103

The ridgeline of Madre Mountain presents significant possibilities for hikers and backpackers to explore the heart of the area, as well as the opportunity to summit the tallest peak in the range. Thompson Canyon is a special draw for rock climbers seeking a challenging experience in the backcountry, while Main Canyon invites would-be explorers to venture through the numerous open meadows and sheer-walled canyons common throughout the area.


Looking east at the Datil IRA from Forest Road 14. Photo DM105

The habitat found in the proposal area is plentiful, with well-functioning ecosystems able to sustain healthy herds of elk and mule deer. The area therefore provides outstanding opportunities for wildlife watching and hunting. In fact, the Datil Mountains hold the Safari Club International's number two all-time record for typical elk. (New Mexico Department of Game and Fish, NMDGF, Harvest Data). The New Mexico Department of Game and Fish's harvest records indicate that Game Management Unit 13, which encompasses the Datil Mountains, offers good turkey and high quality elk hunting (NMDGF, 2012).

Both units invoke a sense of wildness at a grand scale. Visitors will feel that they are in a place untrammeled by humans and primeval in character. A true feeling of self-reliance overcomes would-be explorers as they leave the bounding roads and experience complete solitude. This sense is enhanced by the fact that the units are large and have a high core-to-boundary ratio. In our surveying work, we encountered only two people and minimal signs of humans. The area's quietude and isolation reveal an infinite vastness. The night sky only reinforces this feeling, commanding evening visitors to gaze at the stars that shine brilliantly without interference from light pollution.

Supplemental Values

The Datil Mountains Recommended Wilderness Area has outstanding geology, scenic vistas, and natural habitats. Panoramic views from atop Madre Mountain are breathtaking, as are the sights as one walks through the numerous ponderosa meadows. The dark skies are mesmerizing. The jagged rock formations in the unit are unusual and eye-catching, and make the mountain distinct from the surrounding landscape.

Looking southeast at the Datil IRA from Forest Road 14.
Photo DM106

The Datil Mountains are on the northern edge of the Datil-Mogollon Volcanic Field, just northwest of the Plains of San Agustin. Gray-pink-lavender rocks found in the range are reminiscent of those found in the San Mateo and Magdalena Mountain ranges. The Cenozoic volcanoes whose debris formed these rocks erupted 31 – 28 million years ago. When the hot ash fell in the area of the present day Datil Mountains, it was transformed by heat and compression into welded ashflow tuff, a hard rock characterized by jagged edges and holes formed by gas bubbles. As the welded tuff cooled, it fractured vertically and subsequently weathered along the joints, resulting in dramatic geology that includes free-standing pillars and jagged rock formations.

The area contains a variety of high-quality habitats and wildlife. Scrubland, pinyon juniper woodland, ponderosa pine forest, deciduous oak and grassland areas are all represented in both units of the proposed Datil Mountains Recommended Wilderness Area. Plant species are predominantly native. Grasses include black and sideoats grama, poverty threeawn, burrograss, and galleta grass at the lower elevations. Higher up, grass species include blue and hairy grama, and little blue stem. Shrubs include sotol, cholla, yucca, Apache plume, mountain mahogany, shrub live-oak, gambel oak, and alligator juniper.

Observations and signs of mountain lion, mule deer, black bear, coyote, and Merriam's turkey were all surveyed in the field. The entirety of the proposed Datil Mountain Recommended

Wilderness Area is important breeding ground for mountain lion (Appendix A: Map 9.5) and the southern portion is important for mountain lion connectivity (see Map 9.2). The Datil Mountains also serve as an important secondary pathway for wildlife to reach primary connectivity networks (see Map 6). The Nature Conservancy identified the Datils as a key conservation area in the state due to its ecological diversity and species richness, (see Map 8.2), and the New Mexico Department of Game and Fish identified portions of the Datils as priority crucial habitat (see Map 5).

There is a high potential to see cultural and historical resources in the area. The heritage resources in the Magdalena District "are diverse and representative of nearly every prominent human evolutionary event known to anthropology. Evidence of human use in the area date back 14,000 years" (Basham, 2011, p. 1). Archaeological sites likely exist. The name for the Datil Mountains dates back over two hundred years. The name *Sierra del Dátil* appears on Bernardo Miera y Pacheco's 1779 map, based on the Dominguez-Escalante Expedition of 1776-1777 (*Place Names* 105).

Refer to the proposal overview for more information about the cultural significance and human history of the region.

Manageability

The size and shape of the proposed Datil Mountains Recommended Wilderness Area assures manageability. The majority of the area is isolated from areas of activity, with limited access and very few encumbrances. The area does not have motorized activity occurring within its proposed boundaries. At the time when this proposal was written, there were active mining claims in the T1N R10W township. The entire proposal area (both the northern and southern units) is 61,105 acres; 32,731 acres - or 54% - overlaps with the Madre Mountain and Datil IRAs.

Field Data

Field work was conducted throughout the area over the course of three months during the winter of 2012/2013 by traveling Forest Service routes via motorized vehicle, hiking old reclaimed routes that are no longer accessible by the use of a mechanized vehicle, and exploring the numerous canyons, meadows, and ridgelines on backpacking trips and long day hikes.

All routes traveled were tracked and recorded by using mobile GPS software and taking photo waypoints of wilderness characteristics, as well as photos of the conditions of Forest Service routes and human infrastructure dispersed throughout the area. Appendix E-2 provides a digest of select photographs that demonstrate the wilderness character of the proposal area.

Access Information

Primary access to the proposed Datil Mountains Recommended Wilderness Area is via Forest Service Road 100, Forest Service Road 14, and Forest Service Road 6. Although there are no established Forest Service campsites in the area, the access roads provide ample opportunities for backcountry camping to would-be explorers.

Improvements

Road 14 bisects the Datil Mountains proposal area into two units. The boundaries of the Datil Mountains North Unit are defined by all lands east of Thompson Canyon, acreage northwest of Forest Service Road 14, and land south of Forest Roads 507 and 424. Forest Service Road 100 is cherry-stemmed, along with roads that branch off of it (100A, 100B, and 100D). The boundary of the Datil Mountains South Unit is specifically defined by all lands south of Road 14. Roads 509 and 14*A, which branch off of Road 14, are cherry-stemmed. Four roads are within the proposed area's boundaries because they are not considered roads for the purposes of a roadless inventory as set forth in Forest Service Handbook 1909.12, chapter 70. These routes are described in Appendix C.

In terms of improvements beyond roads, the area does not have any permanent structures, and the occasional signs of human activity, such as abandoned routes, stock tanks, and fencing, are substantially unnoticeable due to the rugged canyons, vegetative diversity, natural reclamation, and steep slopes. There is one small in-holding located in the southern unit; the Forest Service is proposing to close the route that leads to it in the travel plan. Photographs of these human imprints are provided in Appendix E-2.

Looking east at the Madre Mountain IRA from within the proposed Northern Datil Mountain Wilderness Area. Photo DM104

Scott Mesa

Recommended Wilderness Area

Looking north at the Bear Mountains ridgeline from FS Road 506.
Photo SM100

Cibola National Forest – Magdalena Ranger District

Scott Mesa Recommended Wilderness

Size

48,297 acres

Area Overview

The proposed Scott Mesa Recommended Wilderness Area is located just north of the town of Magdalena in Socorro County. The area is divided into two separate units: Scott Mesa West and Scott Mesa East. The Units are separated by Road 354.The area comprises the majority of the Bear Mountains and several major ridgelines and canyons, including Baca, Las Cabras, Bear Springs, and La Jencia canyons. Elevations range from 6,000 feet in the juniper dotted grasslands to 8,200 feet at the summit of the Bear Mountains.

The Bear Mountains are a remote landscape that can be explored within the Cibola National Forest. The absence of any significant human development within or near the range has helped to keep the mountains isolated and natural.

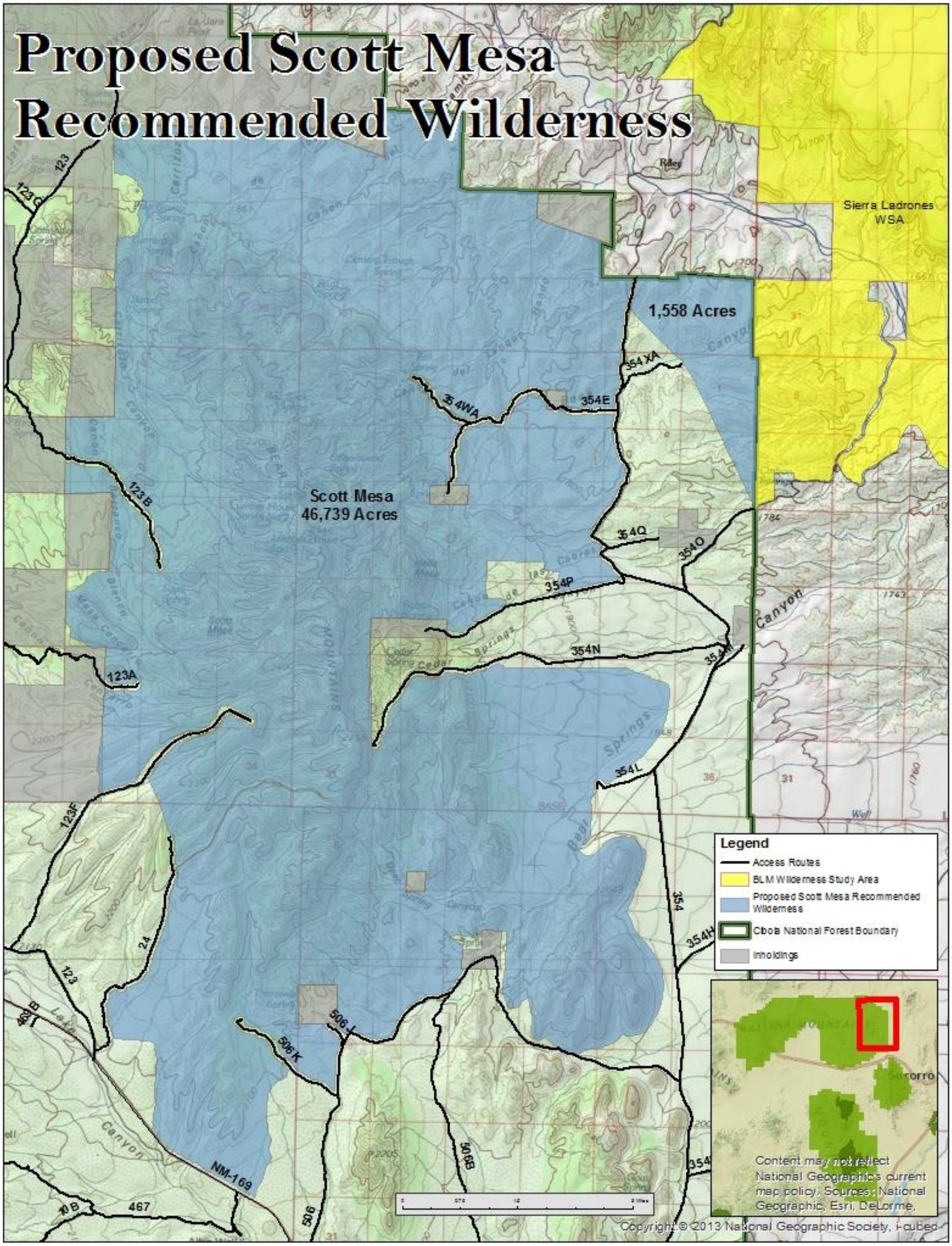
The scenery found throughout the area is exceptional, with numerous open canyons and ridgelines that afford dramatic views and an abundance of opportunities to be alone, explore, and experience wildness. Largely due to the size of the area, rugged topography and vegetation, the Scott Mesa Recommended Wilderness Area provides remarkable hiking, backpacking, hunting, horseback riding and other dispersed recreational opportunities for those seeking a remote, backcountry experiences. It boasts a variety of wildlife including mountain lions, black bear, mule deer, and numerous bird species. There are also a number of springs in the various canyons.

The 45,308-acre Sierra Ladrones Wilderness Study Area (WSA) is directly adjacent to the proposed Scott Mesa Recommended Wilderness Area - East Unit. Moreover, the 230,000 acre Sevilleta National Wildlife Refuge adjoins the Sierra Ladrones WSA. Coupled together, the proximity of both units to the BLM WSA and Wildlife Refuge greatly enhances the region's overall naturalness and opportunities

Looking east at the Sierra Ladrones WSA from the Scott Mesa IRA.
Photo SM101

to experience wildness and primitive forms of recreation.

The boundaries of the Scott Mesa West Unit are generally defined by the USFS Scott Mesa Inventoried Roadless Area (IRA) with additional acreage north of Forest Service Road 354P, south of 354L, and south of 123F. Forest Service Roads 354E, 354WA, 506K, 123F, 123A, 123B, and 123GB are cherry-stemmed. The boundaries of the Scott Mesa East Unit are defined by a power line on the west side that runs diagonally, road 354 in the northwest corner, and the BLM's Sierra Ladrones WSA to the east, and the forest boundary to the north.


Proposed Scott Mesa
Recommended Wilderness
Scott Mesa
46,739 Acres
1,558 Acres
Sierra Ladrones
WSA
Legend
Access Routes
BLM Wilderness Study Area
Proposed Scott Mesa Recommended Wilderness
Cibola National Forest Boundary
Inholdings
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map policy. Sources: National
Geographic, Esri, DeLorme,
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Looking northwest at the Scott Mesa IRA from the juniper-dotted grasslands.
Photo SM102

Apparent Naturalness

The Scott Mesa Proposed Wilderness Area appears predominantly natural and undeveloped, with the scattered imprints of man substantially unnoticeable. Plant and animal communities within the unit appear natural and ecological conditions appear normal.

The variations in elevation provides for a diversity of vegetative types. Scrubland, pinyon-juniper woodland, Gambel oak, mountain mahogany and grassland areas are all represented. Grasses include black and sideoats grama, poverty threeawn, fluffgrass, burrograss, and galleta grass. Shrubs that are mixed in the grasslands include sotol, cholla, yucca, and Apache plume.

There are few non-native species within the unit, which only increases a feeling of apparent naturalness and that the area is ruled by the forces of nature.

The area is rich in wildlife. Observations and signs of mountain lion, pronghorn, mule deer, black bear, and coyote were all surveyed in the field.

The scattered imprints of human activity, such as primitive and abandoned routes, stock tanks, and fencing, are substantially unnoticeable due to the rugged terrain, natural reclamation, vegetative cover, and steep slopes. Very little evidence of dispersed camping exists in the unit.

The Bear Mountains are not known for containing considerable quantities of water, yet the proposed Scott Mesa Recommended

Wilderness Area cradles several fresh water springs in the various canyons. These springs undoubtedly help to contribute to the health and vitality of the many wildlife species common throughout the area. See Appendix E to view photographs illustrating the area's naturalness.

Outstanding Opportunities for Solitude or Primitive & Unconfined Recreation

A visitor can feel alone and remote just about anywhere in the area due to its rugged character and size. The adjacency of the 45,308-acre BLM Sierra Ladrones WSA enhances the sense of isolation and solitude (see Appendix A: Map 11.2.). When in the area, a visitor feels as if they are the only one in a vast expanse of ridges and canyons. Because of its remoteness, the area has remarkable nighttime darkness which makes it particularly good for amateur astronomy and stargazing.

Visitors have opportunities to experience primitive, dispersed recreation such as hiking, bird watching, camping, backpacking, hunting, and horseback-riding. These opportunities are enhanced by the presence of high-quality habitat, remarkable views, easy access by bounding roads, and size. The area offers visitors adventure and solitude, and demands self-reliance. There are no developed facilities within the area.

The crest of the Bear Mountains offers grand views in all directions. The Sierra Ladrones WSA

Looking south at the Scott Mesa IRA from the juniper-dotted grasslands. Photo SM103

is one of the most prominent features in the region – jutting out of the basin floor to the east, while the massive Magdalena Mountains unfold to the immediate south. To the north, the Rio Salado carves an intricate canyon eastward as it makes its way towards the Rio Grande Valley. On clear days, the vistas seem to stretch on indefinitely, allowing the viewer to observe the Manzano Mountain Wilderness in central New Mexico over 60 miles away.

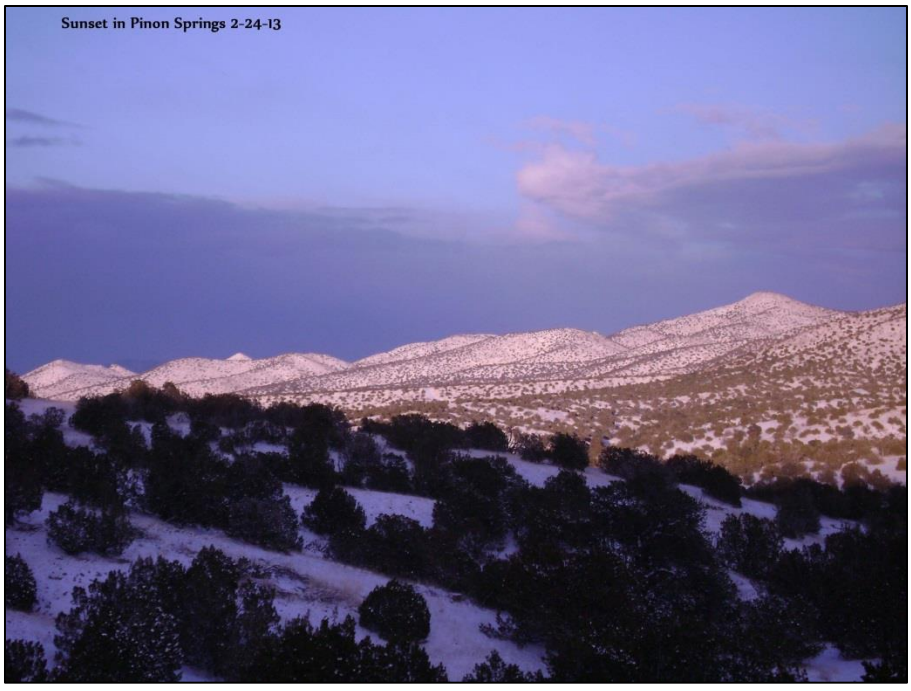
Both Cedar Springs Canyon and Bear Springs Canyon offer outstanding possibilities for hikers and backpackers to explore the heart of the area and to summit the tallest, unnamed peak in the range. There are no marked trails in the unit, which only increases its wilderness character. Backcountry hunting and wildlife watching are also rich in the area as the well-functioning ecosystems are able to sustain healthy herds of mule deer and numerous bird species. The Mountains are locally known for their hunting attractions, but receive relatively little use from other recreational users. The New Mexico Department of Game and Fish's harvest records indicate that Game Management Unit 13, which encompasses the Bear Mountains, offers good turkey and high quality elk hunting (NMDGF, 2012).

The area's remoteness and proximity to the Sierra Ladrones BLM Wilderness Study Area all add up to a wild place. Once visitors leave the boundary roads, they experience complete solitude and know that they are within a place untrammeled by humans and primeval in character. See Appendix E-5 to view photographs of the area depicting solitude and outstanding opportunities for primitive and unconfined recreation.

Supplemental Values

There are many special features and values within the proposed Scott Mesa Recommended Wilderness Area. Panoramic views from atop the ridgelines are breathtaking, as are the sights as one walks the numerous canyon bottoms. The jagged volcanic formations in the unit are unusual and eye-catching and are what make the mountain distinct from the surrounding landscape.

The Bear Mountains region is geologically diverse. Similar to many of the mountains found in this region, the Bear Mountains formed during the general geological turmoil in central New Mexico during mid-Cenozoic time, beginning about 36 million years ago. Most of the range consists of domino-tilted layers of ash flow tuffs expressed as cuestas, or long, linear


Sunset in Pinon Springs 2-24-13

ridges. This area contains the northernmost known exposures of lower Mississippi rocks in New Mexico and is therefore of special interest to those wanting to become familiar with the lithology and paleontology of the Mississippian geologic era.

Healthy populations of wildlife found throughout the area makes the unit remarkably special. Observations and signs of mountain lion, pronghorn, mule deer, black bear, and coyote were all surveyed in the field. There is very little information available to the public on the Bear Mountains, yet in Robert Juylan's book, *The Mountains of New Mexico*, the author points out that because of the various springs in the region, the range is rather popular amongst birders. The area is consistently used by mountain lion (Appendix A: Map 9.5) and serves as a tertiary pathway for wildlife to get to the nearby primary north-south artery located just to the west (Map 6). Portions of Scott Mesa area are considered crucial habitat by the New Mexico Department of Game and Fish (see Map 5).

There is a high potential to see cultural and historical resources in the area. Indeed, scattered pottery shards were observed in the field. The heritage resources in the area "are diverse and representative of nearly every prominent human evolutionary event known to anthropology. Evidence of human use in the district dates back 14,000 years" (Basham, 2011, p.1). The adjacent Sierra Ladrones WSA was heavily used by indigenous people. Sierra Ladrones translates to "Mountain of Thieves," a name Spaniards gave to the range in reference to Navajo and Apache bands that raided Spanish settlements along the Rio Grande, then took refuge in these mountains. See the proposal overview for additional information

Looking north at the Scott Mesa IRA from FS Road 506.
Photo SM105

about the cultural significance and history of the area.

Manageability

The size and shape of the proposed Scott Mesa Recommended Wilderness Area assures manageability. The proposal area is 48,297 acres; 38,272 acres - or 79% - overlap with the Scott Mesa Inventoried Roadless Area (IRA). The majority of the area is isolated from areas of human development, with limited access. The U.S. Air Force conducts military trainings on lands located adjacent to the proposal area. The area does not have public motorized use occurring within its proposed boundaries. At the time that we wrote this proposal, there were no active or pending mining claims, operations, or leases in the area. Roads to non-federal lands are cherry-stemmed and therefore not within the area. The adjacent 45,308-acre Sierra Ladrones WSA is managed by the BLM's Socorro Field Office (see Appendix: Map 11.2). The BLM's management policy for WSAs is to protect the area's wilderness characteristics.

Field Data

Field work was conducted throughout the area over the course of three months during the winter of 2012/2013 and the summer of 2014 by traveling Forest Service routes via motorized vehicle, hiking old reclaimed routes that are no longer accessible by the use of a mechanized vehicle, and exploring the numerous canyons, grasslands, and ridgelines on backpacking trips and long day hikes.

All routes traveled were tracked and recorded by using mobile GPS software and taking photo waypoints of wilderness characteristics, as well as photos of the conditions of Forest Service routes and human infrastructure dispersed throughout the area. Appendix E-5 provides a digest of select photographs demonstrating the wilderness character of the proposal area. Additional photographs, detailed GPS data and field notes are available upon request.

While the proposal area generally aligns with the Forest Service's CH. 70 wilderness inventory, the boundaries do not align precisely. Several blocks of land around the

Looking east at the Sierra Ladrones WSA from within the Scott Mesa IRA.
Photo SM106

edges of our Scott Mesa-Western Unit were not included in the Forest Service's CH. 70 wilderness inventory. The presence of roads and private property appear to be the reason these lands were not included in the agency's inventory. See Appendix C for justification about why we included these roads in our proposal and why the agency should not allow these roads to disqualify these lands from being included in its wilderness inventory. The Scott Mesa-Eastern Unit was not included in the Forest Service's inventory. The eastern unit was included in our proposal because it has wilderness character, does not contain improvements, and is contiguous to a BLM WSA.

Access Information

Primary access to the proposed Scott Mesa Recommended Wilderness Area is via Forest Service Road 354, Forest Service Road 506, and Forest Service Road 123. Cedar Springs Canyon provides easy access to would-be explorers, as does Bear Springs Canyon. There are no trails in the unit, other than game trails, which only increases the unit's overall naturalness and wild character.

Improvements

The boundaries of the Scott Mesa West Unit are generally defined by the USFS Scott Mesa Inventoried Roadless Area (IRA) with additional acreage north of Forest Service Road 354P, south of 354L, and south of 123F. Forest Service Roads 354E, 354WA, 506J, 506K, 123F, 123A, and 123B are cherry-stemmed. Twenty-two roads or road segments are included within the unit because they do not meet the conditions necessary to disqualify an area per the Forest Service Handbook 1909.12, chapter 70. These routes are described in Appendix C. The boundaries of the Scott Mesa East Unit are defined by a power line on the west side that runs diagonally, road 354 in the northwest corner, and the BLM's Sierra Ladrones WSA to the east, and the forest boundary to the north. There are no roads within this unit.

In terms of improvements beyond roads, the area does not have any permanent structures, and the occasional signs of human activity, such as abandoned routes, stock tanks, and fencing, are substantially unnoticeable due to the rugged canyons, vegetative diversity, natural reclamation, and steep slopes. Photographs of these human imprints are provided in Appendices E-5 and D.

Guadalupe

Recommended Wilderness Area

Cibola National Forest – Mount Taylor Ranger District

Guadalupe Recommended Wilderness

Size

19,305 acres

Area Overview

The Guadalupe Recommended Wilderness Area is located approximately 30 miles west of the town of San Ysidro, NM in Sandoval County. The unit encompasses several major canyons that include Guadalupe Canyon and Cañon Salado as well as the northeastern rim of the massive Mesa Chivato. Other major features found in the unit include Mesa de la Vereda, Piedra Blanca and Black Mesa. Elevations are approximately around 8,000 feet throughout the area.

The far northeastern corner of the Mount Taylor Ranger District is a very remote landscape. The absence of any significant human development within or near the area has helped to keep it isolated and predominantly natural.

The scenery found throughout the area is exceptional, with several deep canyons, numerous open meadows and small lakes, and expansive ridgelines that provide remarkable views. Opportunities to find solitude and experience wild nature are abundant in the area. Largely due to its size, topography and vegetation, the proposed Guadalupe Recommended Wilderness Area offers significant hiking, backpacking, hunting, horseback-riding, and other recreational opportunities for those seeking a remote and backcountry experience. It boasts a variety of wildlife including large elk herds, mule deer, black bear, mountain lion and Merriam's turkey.

The Guadalupe unit overlaps with the northeastern corner of the Mt. Taylor Traditional Cultural Property (TCP), which was determined eligible for inclusion on the National Register of Historic Places. Mesa Chivato, a portion of which is within the Guadalupe's boundary, is culturally significant to the Navajo, Pueblo, and Hopi peoples

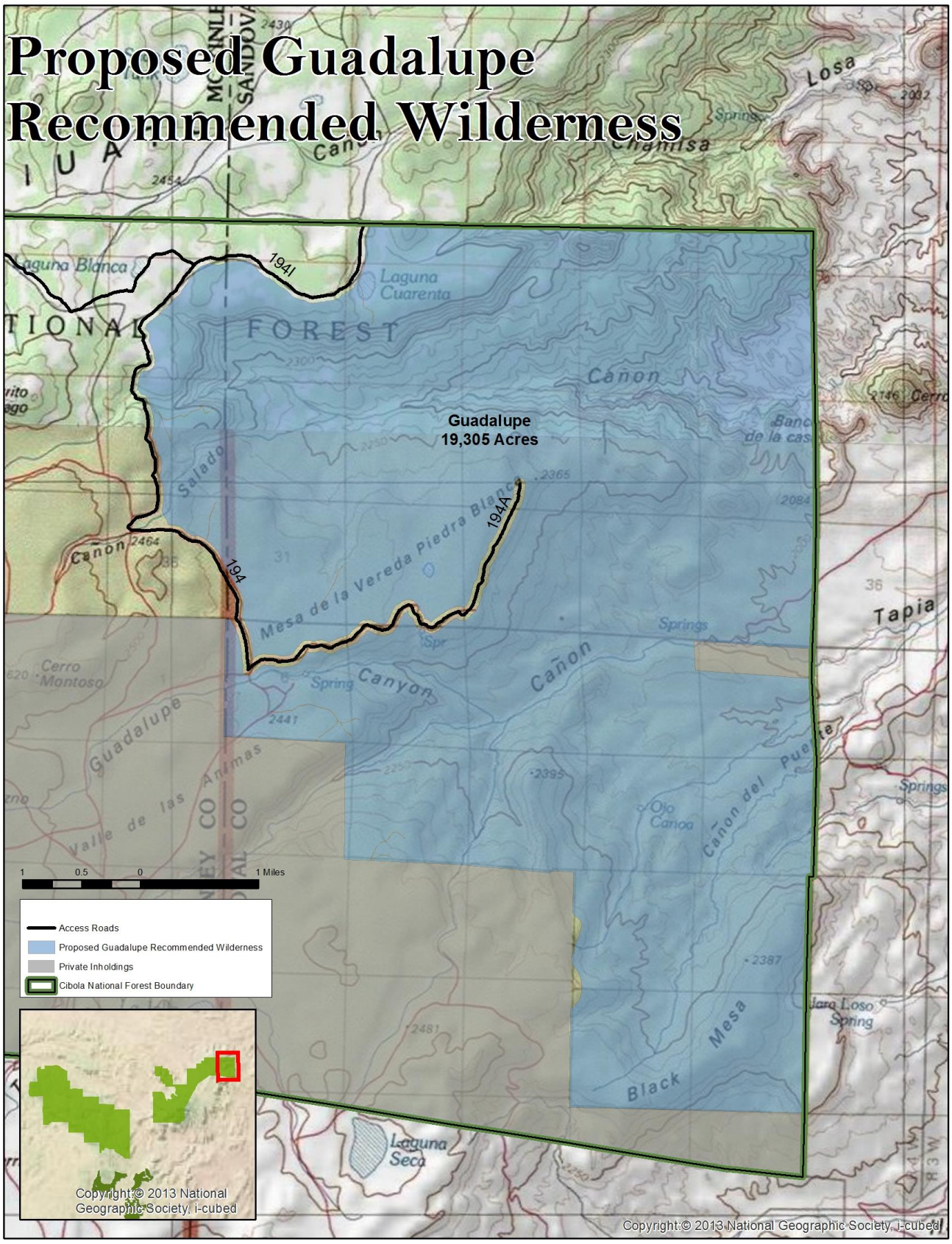
Looking east from a meadow in the Guadalupe IRA. Photo GMT101

(Benedict, 2008).

The Chamisa Wilderness Study Area (WSA), managed by the Bureau of Land Management (BLM), is immediately adjacent to the proposed Guadalupe Recommended Wilderness Area. The size of the combined U.S. Forest Service Inventoried Roadless Area (IRA) and BLM WSA is 35,907 acres. Three other BLM WSAs (the Ignacio Chavez, Empedrado, and La Lena) adjoin the Chamisa WSA. Taken together, this interconnected network of administratively designated wilderness quality lands totals 92,848 acres.

The boundaries of the unit are generally defined by the Guadalupe IRA adjacent to the BLM Chamisa WSA, with additional acreage to the west. Specifically, the boundary is defined by all lands east of Forest Service Road 194. Forest Service Road 194A is cherry-stemmed.

Looking west at the Guadalupe IRA near the Chamisa WSA.


Proposed Guadalupe Recommended Wilderness
Guadalupe
19,305 Acres
1941
194
194A
Mesa de la Vereda Piedra Blanca
Laguna Blanca
Laguna Cuarenta
FOREST
Cañon
Salado
Spring Canyon
Cerro Montoso
Guadalupe
Valle de las Animas
Ojo Canoa
Cañon del Puerto
Mesa Black
Laguna Seca
Tapia
Losa
Springs
1 0.5 0 1 Miles
Access Roads
Proposed Guadalupe Recommended Wilderness
Private Inholdings
Cibola National Forest Boundary
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Looking west from a meadow in the Guadalupe IRA.
Photo GMT102

Apparent Naturalness

The area appears predominantly natural and undeveloped, with the scattered imprints of man substantially unnoticeable. Open grasslands, juniper dotted grasslands, old growth ponderosa pine, and riparian habitats are all represented in the proposed Guadalupe Recommended Wilderness Area. The Rio Puerco watershed surrounds the unit, and is a vital biotic link between the Colorado Plateau and the Southern Rockies, providing habitat and dispersal corridors for far-ranging species such as mountain lion. The Rio Puerco is also a major tributary of the Rio Grande, joining it just north of the Sevilleta National Wildlife Refuge. As such, it is a key riparian corridor in an otherwise arid landscape.

The area also enjoys an abundance of wildlife. The type of habitat found in the unit sustains healthy populations of game species such as elk and mule deer, and predator species such as mountain lion and black bear. Bird species are particularly diverse in the area and include great blue heron, white faced ibis, canvasback, common merganser, rough legged hawk, red tail hawk, ferruginous hawk, sharp-shinned hawk, osprey, golden eagle, barn owl, great horned owl, and kestrel, whip-poor-will, white-throated swift, western kingbird, warbling vireo, western meadowlark, purple finch, swifts, swallows, prairie falcon, gray-headed junco, Stellar's jay, and pinyon jay. Furthermore, the area offers excellent raptor-nesting habitat on the various cliffs that spill down into the Rio Puerco valley below.

There are some stock fences and tanks, as well as a few old Forest Service system routes in the unit that are either closed to motorized use or that have naturally rehabilitated. Little evidence

of dispersed camping exists in the unit. Non-native species are rare.

Outstanding Opportunities for Solitude or Primitive & Unconfined Recreation

Outstanding opportunities for hiking, camping, backpacking, horseback-riding, hunting, and other forms of primitive recreation are excellent in the area given its natural and rugged character, high-quality habitat, remarkable views, and size. The area offers visitors adventure and solitude, and demands self-reliance. Of particular note are the opportunities provided in the wide, rugged canyons and on the cliff edges of Mesa de la Vereda Piedra Blanca, as well as in Guadalupe Canyon and Cañon Salado. Within the area, there is a sense of vastness on a grand scale, so much so that at night the stars shine brightly without interference from light pollution and offer exceptional stargazing opportunities.

Much of the year, the area surrounding the proposed Guadalupe Recommended Wilderness Area is closed to motorized vehicles in order to protect the natural resources found on this portion of Mesa Chivato. Both the Forest Service and BLM close their respective roads that access the periphery of the area from July 1 – September 14 and November 15 – April 14. Subsequently, in order to access the area during these times it is necessary to pack in 5 miles from the north, and over 20 miles from the south just to reach the boundary of the unit. These seasonal road closures enhance the remoteness and solitude within the area, and make the area a true backcountry recreational treasure defined by challenge and primitive exploration.

Looking west at a high mesa within the proposed Guadalupe Recommended Wilderness Area.

The BLM Chamisa (14,447 acres) and Ignacio Chavez (32,286 acres) WSAs are directly adjacent to the area. Building further out from these adjacent WSAs are the Ignacio Chavez Contiguous IRA (993 acres) to the east and the La Lena (10,208 acres) and Empedrado (8,946 acres) WSAs to the north of the Guadalupe proposal area to make a continuous block of connected wilderness quality lands. In addition to these WSAs, the BLM in its draft Resource Management Plan for the Rio Puerco Field Office has proposed several more adjacent and nearby designations and management areas amounting to several thousand acres. A detailed review of these conservation designations are provided in Appendix F, and maps of the trans-boundary conservation opportunities are provided in Appendix A. (See Maps 11.3-11.6). The entire 66,880 acres of adjacent WSA lands make the area that much more remote and isolated. Moreover, the area has a high core area to boundary ratio which ensures a large interior core far from bounding roads. Once visitors leave the boundary roads, they experience complete solitude and know that they are within a place untrammeled by humans and primeval in character. In our surveying work, we did not encounter any people and observed minimal signs of humans.

Opportunities to experience backcountry hunting are also rich in the Guadalupe area. Habitat is plentiful, with well-functioning ecosystems able to sustain healthy herds of elk and mule deer. The Rocky Mountain Elk Foundation identified important over-winter range for elk (see Map 12.3) in the proposal area. The New Mexico Department of Game and Fish's harvest records indicate that Game Management Unit 9, which encompasses the Guadalupe area, offers good pronghorn and good to excellent turkey hunting (New Mexico Department of Game and Fish, 2012).

See Appendix E-7 to view photographs of the area depicting solitude and outstanding opportunities for primitive and unconfined recreation.

Supplemental Values

There are numerous special features and values within the proposed Guadalupe Recommended Wilderness Area. The Area consists of lands on the northeastern reaches of Mesa Chivato with cool pine forests and elevations over 8,000 feet. The panoramic views from atop the mesa ridgelines are exceptional and offer sweeping views of the Rio Puerco Valley. Volcanic knobs, and crags dot the surrounding landscape, including the iconic Cabezon Peak to the north.

Mesa Chivato itself is composed of basaltic lava flows and viscous lavas of an especially rare type, that erupted from over 300 small, geologically young (3.3 to 1.5 million years old) volcanic vents and craters. The lava flows from these volcanoes cap colorful Cretaceous shoreline and marine rock layers that are well-exposed where the lava cap ends and the elevation drops quickly to the Arroyo Chico to the north.

The area is considered culturally significant – both past and present – to the Navajo, Hopi, and Pueblo peoples. The Mount Taylor TCP encompasses the entirety of the Guadalupe unit. (See Appendix A: Map 7) The lands within the TCP designation hold long-standing and ongoing historical, cultural, and religious importance for the Navajo Nation, the Hopi Tribe, the western Pueblos of Acoma, Zuni, and Laguna, many of the Rio Grande Pueblos, and the Jicarilla Apache (Benedict, 2008). The area

contains a number of cultural sites, both historic and pre-historic. According to Navajo legend, Cabezon Peak is the head of a large giant that was slain by the Twin War Gods. Prehistoric cultural resources include numerous Paleo-Indian, Archaic, Navajo, and Pueblo sites. The high elevation of Mesa Chivato and its steep drop to the Rio Puerco Valley make it more likely that early humans hunted and gathered rather than lived in the area (Benedict, 2008).

A prehistoric Pueblo ceramic/lithic scatter and a historic Navajo hogan have been surveyed in the adjacent Ignacio Chavez WSA to the northwest. The Navajo site of Big Bead Mesa, a National Historic Landmark, is located to the east. The Pueblo sites in this general region tend to be located near drainages, on the nearby mesas and throughout the Rio Puerco watershed. One of the reported sites is a large pueblo (over 150 rooms) characterized by over 1000 square feet of rubble mound. The remainder of the reported Pueblo sites range from small lithic/sherd scatters to field houses and small room blocks (New Mexico Statewide Wilderness Study; DOI, 1986). See the proposal overview for more information about the cultural significance and human history of the area.

Healthy populations of wildlife found throughout the area also make the area noteworthy. Signs of mountain lion, pronghorn, mule deer, black bear, coyote, and red and gray fox were all surveyed in the field. The entirety

Looking southeast from a high ridgeline in the Guadalupe IRA.

of the proposed Guadalupe Recommended Wilderness Area is important breeding ground for mountain lion (Appendix A: Map 9.1).

Manageability

The size and shape of the proposed Guadalupe Recommended Wilderness Area assures manageability. The majority of the area is isolated from areas of human activity, with limited access and very few encumbrances. The area does not have motorized activity occurring within its proposed boundaries. At the time this proposal was written, there were no active or pending mining claims, operations, or leases in the area. Non-federal lands are cherry-stemmed and therefore not within the area. The proposal area is 19,305 acres; 13,230 acres - or 69% - overlaps with the Guadalupe IRA.

Field Data

Field work was conducted throughout the area over the course of three months during the winter of 2012/2013 by traveling Forest Service routes via motorized vehicle, hiking old reclaimed routes that are no longer accessible by the use of a mechanized vehicle, and exploring the numerous mesas and canyons on backpacking trips and long day hikes.

All routes traveled were tracked and recorded by using mobile GPS software and taking photo waypoints of wilderness characteristics, as well as photos of the conditions of Forest Service routes and human infrastructure dispersed throughout the area. Appendix E-7 provides a digest of select photographs demonstrating the wilderness character of the proposal area. Additional photographs, detailed GPS data and field notes are available upon request.

Access Information

Primary access to the proposed Guadalupe Recommended Wilderness Area is via Forest Service Road 239, 194 A, and Bureau of Land Management Road 1103. However, both Forest Service Road 239 and BLM Road 1103 have seasonal closures between July 1 – September 14 and November 15 – April 14.

Improvements

The boundaries of the proposed Guadalupe Recommended Wilderness Area are generally defined by the Guadalupe IRA adjacent to the BLM Chamisa WSA, with additional acreage to the west. Specifically, the boundary is defined by all lands east of Forest Service Road 194. Forest Service Road 194A is cherry-stemmed. There are no system routes within the proposed area.

In terms of improvements beyond roads, the area does not have any permanent structures, and the occasional signs of human activity, such as abandoned routes, stock tanks, and fencing, are substantially unnoticeable due to the rugged canyons, vegetative diversity, natural reclamation, and steep slopes. Photographs of these human imprints are provided in Appendix E-7.

Sandia Mountains

Outdoor Education and Natural Area

A large open meadow near the Cienega Canyon Nature Trail in the proposed Sandia Educational Natural Area.
Photo SENA100

The Doc Long Picnic Grounds wtih several facilities that contain educational information.
Photo SENA101

Cibola National Forest – Sandia Ranger District

Sandia Mountains Proposed Outdoor Education and Natural Area

Size

3,157 acres

Area Overview

The proposed Sandia Mountains Outdoor Education and Natural Area is located immediately east of the Sandia Mountain Wilderness in Bernalillo County, NM. The area is about 15 miles from Albuquerque and 50 miles from Santa Fe, with easy access on paved roads and approximately one third of New Mexico's population living within 20 miles of the area.

The proposed area is uniquely suited to serve as an outdoor learning and natural area. Its purpose would be to forge stronger human connections to the forest, encourage outdoor recreation and exploration, and share current thinking about the ecology, history, and management of the Sandias. It is an easy-to-access gateway to the Sandia Mountains, with towering ridge lines, dramatic views, spectacular geology, bird-watching, hiking, biking, horseback riding, and wilderness. With picnic areas, bus and car parking, and a variety of trails from easy to more challenging, the area could serve as a visitor and learning hub to the Cibola National Forest with minimal additional investment.

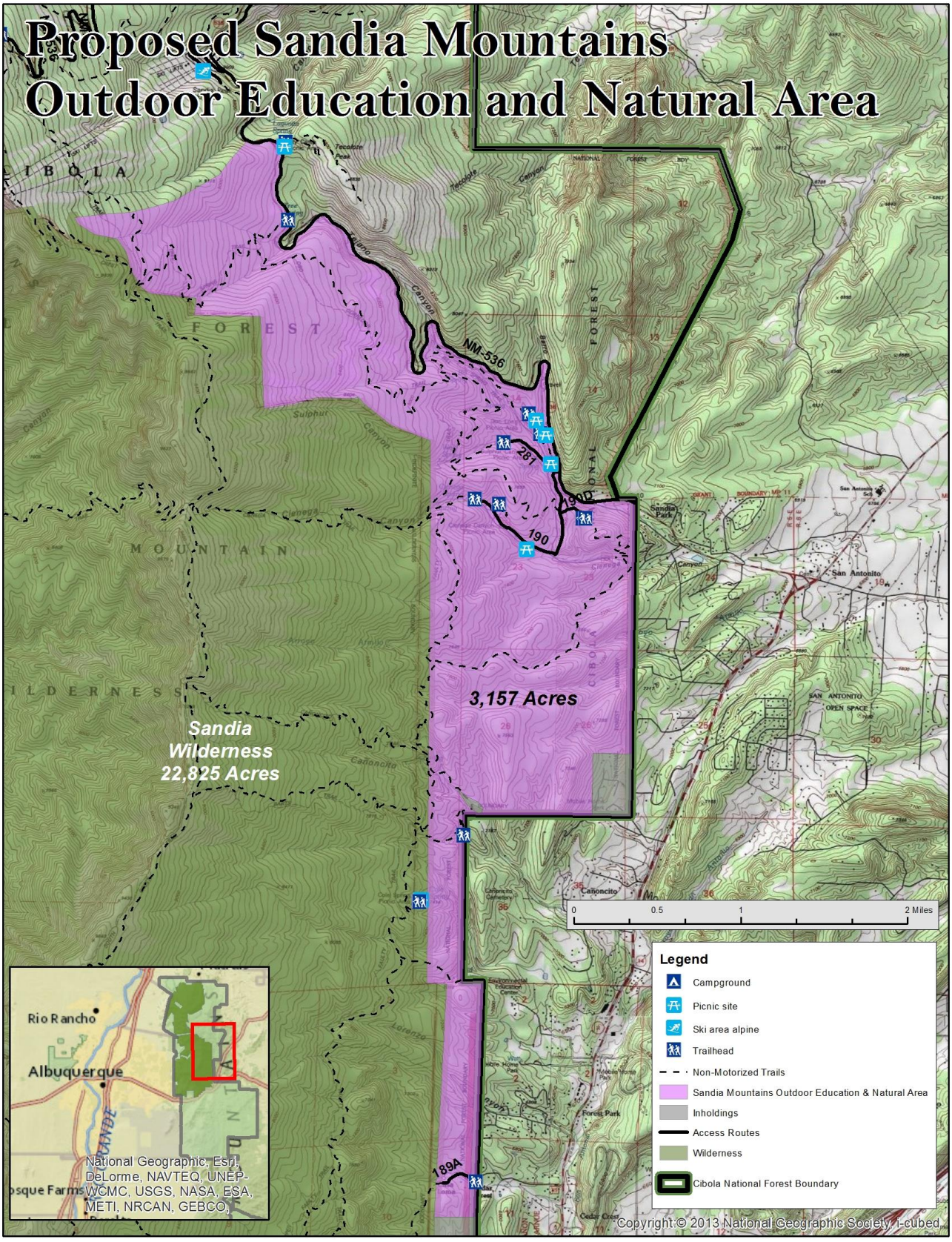
By designating this area, the Forest Service will strengthen community connections to the national forest and enhance opportunities for youth and underserved populations to learn about and access the forest. It will also provide a mechanism to help tackle serious and well-documented social issues, including the growing disconnect between humans and the environment around them, high obesity rates, especially amongst youth, and low environmental literacy rates. To this end, it builds off and complements current community efforts such as that of the Sandia Mountain Coalition to enhance educational access and community connections.

Schools, families, individuals, and community and outdoor educational organizations would be encouraged to visit, participate in educational programs, and utilize the facilities. The Forest Service would provide a variety of interpretive programs and materials, and facilitate utilization of the area by community and education organizations including schools. Interpretive topics would likely include geology, ecology, natural history, forest dynamics and climate change, land ethic, and social history, including the role of indigenous and Hispanic populations in inhabiting and shaping the landscape.

Elevations range from 7,200 feet near the picnic grounds to 9,800 feet at the northeastern boundary with the Sandia Mountain Wilderness. The boundaries of the proposed area are specifically defined by all lands south of the crest road beginning at the Sandia Mountain Ski Area and


The Doc Long Picnic Grounds wtih several facilities that contain educational information. Photo SENA101

terrain east of the Sandia Mountain Wilderness. Additional acreage west of the Forest Service boundary near Sandia Park that includes the developed picnic grounds as well as other lands south of these developed sites are included within the boundary.


Proposed Sandia Mountains
Outdoor Education and Natural Area
NM-536
281
190D
190
189A
3,157 Acres
Sandia
Wilderness
22,825 Acres
Sandia Park
San Antonito
SAN ANTONITO
OPEN SPACE
Cañoncito
Forest Park
Cedar Crest
0
0.5
1
2 Miles
Legend
Campground
Picnic site
Ski area alpine
Trailhead
Non-Motorized Trails
Sandia Mountains Outdoor Education & Natural Area
Inholdings
Access Routes
Wilderness
Cibola National Forest Boundary
Rio Rancho
Albuquerque
National Geographic, Esri, DeLorme, NAVTEQ, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO,
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Outstanding Opportunities for Learning & Outdoor Recreation

The proposed area is uniquely suited to serve as an outdoor learning and natural area. First, the area already has much of the infrastructure that would be needed, including easy paved road access, multiple parking areas for cars and buses, covered shelters, five picnic areas, campsites, trails of all levels including those for children, bathrooms, interpretive kiosks and trails, and access to spectacular geology, scenery, bird-watching, hiking, biking, horseback riding, and wilderness. With only a little additional investment and strategic planning, the area could become a center for learning and exploration. In addition, it could serve as a model for other urban interface forests across the nation for forging stronger human connections to the forest and reducing barriers to accessing, enjoying, and learning about national forests – especially those facing underserved and urban populations.

Second, the area has great potential to serve as an educational, citizen science, and outdoor recreation hub for the local schools and communities and help tackle serious social issues (e.g., the growing disconnect between humans and the environment around them, high obesity rates, especially amongst youth, and low environmental literacy rates). Given its close proximity to the greater Albuquerque area, numerous opportunities exist to forge or expand upon existing partnerships with schools, nonprofit/community organizations, and communities. Partnerships advance the purposes of the area by leveraging funding and capacity.

Third, the area has the potential to serve a huge audience, with one-third of New Mexico's population living within 20 miles of the range and easy access on paved roads.

Fourth, with a mile of vertical relief, visible geology, and high quality habitats, the area offers wonderful opportunities to explore, observe wildlife, and interact with nature. Current recreational opportunities include hiking, wildlife watching, horseback riding, picnicking, photography, and mountain biking. Bird-watchers love this area in particular. *Birding Hot Spots of Central New Mexico*, by Judy Liddell and Barbara Hussey, identifies both the Sulphur Canyon and Cienega Canyon picnic grounds in the unit as outstanding locations for bird watching.

Examples of Existing Infrastructure

The Sulphur Canyon Picnic Area lies adjacent to the Sandia Mountain Scenic Byway. Just 15 miles away from the City of Albuquerque, the area provides visitors immediate access to day-use activities, as well as access to multi-day adventures in the surrounding Sandia Mountain Wilderness.

The Cienega Canyon Picnic Area boasts a number of nature trails that provide families, organized groups, and adventurers outstanding opportunities to experience nature and learn about the surrounding ecosystems.

The Cienega Nature Trail, nestled amongst a meadow and babbling stream, in particular provides rewarding nature viewing and learning opportunities. Illustrated signs translated into Braille for the visually impaired educate explorers about the natural environment; travelers have the opportunity to learn more about ponderosa pine, alligator juniper, boxelder, and a host of other species common throughout the unit. The trail provides

outstanding opportunities for casual walkers, strollers, and small children to get out in nature. You can also follow several other trails in the immediate vicinity up or down the mountain.

The Doc Long Picnic Area lies adjacent to the Sandia Mountain Scenic Byway. This picnic area is situated amongst tall pine trees and mountainous terrain. Three adjacent hiking trails provide visitors with many loop trail alternatives. The picnic area has two covered shelters which are replicas of a mid-1930s CCC design.

Natural History

The Sandia Mountains provide plentiful opportunities to learn about geology and natural resources. The mountains formed as the Precambrian granite slab's western end rose upward relative to the strata in the Rio Grande valley. The Pennsylvania limestone layers on the 10,000-foot crest are also found 10,000 feet beneath the Rio Grande, a vertical displacement of about four miles. This geology is the reason for the gentle eastern slopes and the steep and craggy western escarpment.

The Sandia Mountains' mile of vertical relief means climate and vegetation varies widely. The foothills receive about 8 to 10 inches of precipitation a year; the mountains' upper regions receive 25 to 30 inches. While most drainages have small, intermittent streams, explorers can find a few springs and other reliable water sources throughout the area.

The large variation in elevation results in diverse vegetative types, from upper Sonoran shrublands to fir and spruce forests. The upper Sonoran zone includes desert grasses and shrubs such as bear grass, apache plume, blue gramma, cholla and prickly pear cacti, and mountain mahogany. Tree types include pinyon-juniper, ponderosa pine, spruce fir, aspen, and Douglas fir. The area sustains numerous species of wildlife that include black bear, mountain lion, mule deer, Abert's squirrel, and an assortment of bird species.

Proposed Management

Upon designation of the Sandia Mountains Outdoor Education and Natural Area, the Forest Service, in coordination with stakeholders, would develop a management plan designed to protect and enhance the area's educational, outdoor, laboratory, and recreational purposes. This necessarily means disallowing uses that would compromise those purposes, including new road building. Other than at existing facilities such as roads, parking lots, and pullouts, the area would be managed for non-motorized uses. Existing developed recreation facilities would be maintained and enhanced as necessary to facilitate the purposes for which the area is designated.

Schools, families, individuals, and community and outdoor educational organizations would be encouraged to visit, participate in educational programs, and utilize the facilities. The Forest Service would provide a variety of interpretive programs and materials, and facilitate utilization of the area by community and education organizations, and schools.

Forest Service Direction

The sixth goal of the USDA Forest Service Strategic Plan FY 2007–2012 is to engage urban America with Forest Service programs.[1] The outcome for this goal is "Broader access by Americans to the long-term environmental, social, economic, and other types of benefits provided by the Forest Service," and the supporting objective is to "Promote conservation education to increase environmental literacy through partnerships with groups that benefit and educate urban populations."

The Forest Service planning rule encourages actions that forge stronger human connections to nature.[2] It also provides the explicit authority for the Forest Service to establish designated areas within the land management planning process such as the one proposed here.[3]

Field Data Supporting the Proposal

We conducted field work to assess the special and unique character of the area over the course of two months during the winter of 2013 by traveling Forest Service routes via motorized vehicle and exploring the trails and campgrounds in the area on day hikes.

We tracked and recorded all of the routes that we traveled using mobile GPS software and taking photo waypoints of educational and natural characteristics, as well photos of as the conditions of Forest Service infrastructure within the unit. Detailed GPS data, photographs, and field notes are available upon request.

[1] http://www.fs.fed.us/publications/strategic/fs-sp-fy07-12.pdf
[2] 36 CFR 219.8(b)(6) and 36 CFR 219.10(a)(10)
[3] 36 CFR 219.7(c)(2)(vii) and 36 CFR 219.19

Access Information

Primary access to the proposed Sandia Mountains Outdoor Education and Natural Area is via the Crest Road. Sulphur Canyon Picnic Ground, Cienega Canyon Picnic Ground, and Doc Long Picnic Ground all provide easy access to would-be explorers, as does the Acequia Trail, Bill Spring Trail, and Tree Springs Trail.


Looking northeast from a trail in the proposed Sandia Educational Natural Area.
Photo SENA104

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