Rio Grande National Forest – Draft Assessment 13
Cultural and Historic Resources

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Introduction

Assessment 13 assesses available information for historic and cultural resources and uses. The content of this assessment is based upon guidance found in FSM 1909.12, Chapter 10 (Assessments) and Section 13.8 (Cultural and Historic Resources and Uses).

> "The San Luis Valley is a living laboratory." ~ Loretta Mitson

Cultural and historic resources and uses in the plan area are important to understanding the social, economic and ecological sustainability of the plan area, the state of Colorado, the Rocky Mountain region and the nation as a whole. Currently, there are approximately 2,099 documented cultural resources documented in the plan area, including both prehistoric and historic remains. Cultural and historic resources within the plan area represent the processes and events important to the identity and history of local and tribal communities. Contemporary uses of resources and places within the plan area by American Indian, Hispanic and Anglo-American traditional communities are critical to maintaining the cultural identity of these communities. Historic properties contain a wealth of information for potential scientific research regarding social and ecological conditions and changes through time, including human successes and failures in coping with these transformations over the past twelve millennia. This information can be of value to managers making decisions regarding the contemporary and future ecological management as well as educating the public about the complex ecological sustainability of the plan area.

This assessment has been prepared to assist in identifying the need for change in the revision of the Rio Grande National Forest's existing 1996 land and resource management plan, and in developing components for the revised plan, including desired conditions, objectives, standards, guidelines, and suitability of lands. The assessment has been prepared as directed by 36CFR 219.6(a) and (b)(13), and in accordance with FSH 1909.12, ch. 10, secs. 11 and 13.8.

A Forest Plan contains guidance, including standards and guidelines, to protect cultural and historic resources within the Forest. Many heritage resource values can be protected effectively through application of regulations under the National Historic Preservation Act (NHPA), the Native American Grave Protection and Repatriation Act (NAGPRA), the Archeological Resource Protection Act (ARPA), and others.

Information Sources and Gaps

Information used to compile this assessment consisted of site and report records for the Rio Grande National Forest, corporate geographic information system (GIS) and INFRA databases for the Rio Grande National Forest, and Colorado's Office of Archaeology and Historic Preservation site record and GIS databases. As directed by 36CFR 296(a)(2), interested parties who are knowledgeable about the plan cultural and historic resources and uses of the plan area were contacted to request information regarding the plan area. A public meeting held on March 10, 2015 in Alamosa, Colorado was convened to elicit such information. At least 50 people were in attendance.

Information gaps include the many thousands of acres within the plan area that have yet to receive cultural resource inventory and the many hundreds of archaeological site yet to be documented. Hundreds of sites have also been left "unevaluated" to the National Register, representing a backlog of "deferred maintenance" that makes it harder to manage the truly significant sites. Pre-1985 inventories are largely suspect in terms of their adequacy and many of those require further survey. Much of the legacy data entered into INFRA before the year 2000 is greatly lacking in substantive information. Likewise site condition data within the database is lacking or inconsistent. In terms of cultural and historic uses within

the plan area, there is still much we don't know about the way in which traditional Hispano communities in the San Luis Valley use the Forest. Finally, little is known about the special interest areas designated for their cultural values in terms of how they should be managed. These include the Fremont Historic Area, the Wagon Wheel Gap Experiment Station, the Bachelor Loop Historic Area and the Baca Mountain Tract.

Scale of Analysis

The scale of this analysis includes all lands within the Rio Grande National Forest planning area, surrounding federal lands that include National Park Service, Bureau of Land Management and U.S. Fish and Wildlife Service lands as well as State and private lands.

Cultural and Historical Context

A comprehensive synthesis of the culture history of this section of southwestern Colorado is contained in *Colorado Prehistory: A Context for the Rio Grande Basin* (Martorano et al. 1999), *Colorado History: A Context for Historical Archaeology* (Church et al. 2007) *Historical Archaeology Context* (Buckles and Buckles 1984), and the *Colorado Engineering Context* (King 1984).

Prehistoric Overview

Prehistoric research themes generally include questions about local chronology, individual site function, subsistence strategies, lithic procurement strategies, lithic technology, technological and cultural change, paleoenvironmental reconstruction, and resource exploitation patterns (Martorano et al. 1999; Guthrie et al. 1984).

The Paleoindian Period (12,000–8,000 B.P.)

The Paleoindian period, 11,500–8,000 B.P. (Before Present), provides evidence for the earliest occupation of south-central Colorado. This period includes the Clovis, Folsom, and Plano stages, and is characterized by the hunting of big game such as mammoth and bison by hunters using long, lanceolate projectile points. Settlement and subsistence activities during the Paleoindian period are poorly understood and can only be inferred from the limited evidence. However, the San Luis Valley is known for its relatively high number of Paleoindian sites, especially Folsom era sites within the San Juan, closed basin and open basin subareas (Martorano et al. 1999). One such site is the high elevation Black Mountain Folsom Site (5HN55), the highest known Folsom site in North America, located within the plan area. The evidence suggests that mobile groups hunting big game and gathering other wild resources entered the area intermittently. Lithic sourcing also suggests high residential mobility during the Paleoindian period as many Paleoindian projectile points were manufactured using exotic tool stone. The site was excavated in 1998 by Smithsonian archaeologist Peggi Jodrey and Earth Watch volunteers. The data is yet to be adequately written up and the artifact assemblage should be retrieved from the Smithsonian Institute.

The Archaic Period (8,000–1,600 B.P.)

Between 8000 B.P. and 1600 B.P., mammoth and other Ice Age fauna became extinct, probably due to a combination of factors including the transition from an ice age environment to the milder climate of the Holocene (Kelly and Todd 1988). The extinction of the Ice Age fauna caused a shift from a reliance on big-game hunting to the hunting of smaller game. An increase in the collection and processing of plant foods is also suggested by the greater number of pounding and grinding stones found at sites that date to the Archaic period (Cassells 1997). The majority of archaeological knowledge regarding Archaic sites in the San Luis Valley is based on surface materials recorded during inventory projects, including both lithic scatters, open camps and isolated projectile points. More widespread are Late Archaic (post–4950 B.P.) point styles, including corner-notched with rounded bases, corner-notched, and Elko corner-notched and

eared. There is a wide gap in knowledge regarding the Archaic Period in the San Juan Mountains sub-area and other high elevation locations in the Southern Rocky Mountains, though recent research is beginning to change this. While Archaic sites are not uncommon in the plan area, very little controlled excavation has been done to provide detailed chronological or geomorphological information regarding the use of high elevation sites.

During range analyses in the Divide RD, several intact hearths were found at 5ML662 and were tested in summer 2014. Preliminary C14 dates are clustered within the Late Archaic 1700 B.P. Middle Archaic sites are even less well understood. Preliminary C14 data for 5ML302 suggests an occupation of around 5400 BP. The eligible sites on and around the area have the potential to inform many Archaic research themes, including a better understanding of the availability and distribution of lithic source material, chronology of the source use, and Archaic and Late Prehistoric site structure. Given the density of prehistoric sites currently known in the area, their excellent preservation, and the high potential for more sites in the area, the area should be considered as a potentially eligible historic district and a special interest area for its cultural values in the upcoming Forest Plan Revision effort.

The Late Prehistoric Period (1,600–500 B.P.)

Archaic hunting and gathering subsistence strategies likely continued throughout the Late Prehistoric period in the region. Although the San Juan Mountains and Rio Grande Basin in general lack the hallmark of the Formative stage—agriculture or similar economy allowing sedentary village life—many sites in the region exhibit Formative period traits from adjacent culture areas, especially the southwest (Martorano et al. 1999).

Late Prehistoric site types in the region are similar to those from the Archaic period: primarily lithic scatters and open camps, with a few stone circle sites, rock shelters, and quarry sites. Most of these have been found along the upper Rio Grande, Saguache and Conejos drainage corridors. The lithic scatters typically contain debitage, a few tools, and small corner- or side-notched projectile points.

Ceramic sites in the San Luis Valley have revealed glazed, biscuit, cord marked and black-on-white wares, as well as other unidentified utilitarian wares. Some of the black-on-white wares appear similar in design to McElmo/Mesa Verde Black-on-white, whereas other vessel fragments have been attributed to the Ute. Micaceous ceramics have also been noted; some appear similar to be Pueblo types from A.D. 1000–1200, while others may be later, with a possible protohistoric Taos or Apachean affiliation (ca. A.D. 1550–1890). Excavated by C.T. Hurst in 1939, the Saguache Shelter (5SH1458) is a complex site probably occupied during the Late Prehistoric and possibly Protohistoric periods (Hurst 1939, as cited in Martorano, et al. 1999). This rock shelter site featured rock walls, pottery, corn, turkey feathers, bone, groundstroke, bone beads, coiled basketry, hafting material, turquoise, a stone fetish, and petroglyphs, in addition to an assortment of stone tools and an abundance of debitage, strongly suggesting Pueblo influence from the south (Martorano et al. 1999).

The Contact-Era Period (500–130 B.P.)

The Contact-Era Period, sometimes characterized as the ‘Protohistoric’ is understood in the archaeological record by Euro-American trade goods such as: guns; metal projectile points; metal knives and cooking pots; flaked glass artifacts; glass beads; horse trappings; small side-notched, corner-notched, and un-notched metal arrow points; wickiups; peeled trees; Uncompahgre Brown Ware ceramics; and rock art exhibiting horses and riders. Documented Spanish visits occurred in the San Luis Valley by A.D. 1684, but initial contact likely occurred earlier. The Ute in the area obtained horses from the Spanish around A.D. 1640, probably indirectly at first via existing trade relationships with the Pueblo groups of the Rio Grande Valley in northern New Mexico. Historical references indicated that several groups occupied and/or utilized the Rio Grande Basin of southern Colorado during the Protohistoric period,

including: Ute, Comanche, Apache, Navajo, Arapaho, Cheyenne, and northern Pueblo (Taos, Tewa, and Tesuque). Although the Ute are generally considered the primary inhabitants of the San Luis Valley, other groups made seasonal use of the area for hunting and trading purposes. Identification of specific cultural groups in the archaeological markers is sketchy at best, but brownware ceramics may be one of the most reliable indicators of Numic groups, such as the Ute (Martorano et al. 1999). Overall, archaeological data from the Contact-era is limited (Martorano et al. 1999).

Historic Overview

From 1536 to 1848, most of the western United States, including a majority of the land that was later to become Colorado, was under the rule of Spain. The area was sparsely settled and seldom explored until 1821, after Mexican independence, when the region experienced an influx of Euro-American fur trappers. However, by the mid-1840s the region's wildlife had been over-exploited and beaver in the region were near extinction. That drop in supply, in combination with a change in demand, led to a swift decline in trapping in the region.

In 1848, the United States acquired the western territories which led to vigorous territorial exploration of the area. In 1868 the United States signed a treaty with the Ute tribe, giving the Ute everything west of the 107th meridian and south of a line 15 miles north of the 40th parallel, encompassing much of the San Luis Valley and the planning area. The first prospectors into the area were trespassing on Ute land, and it wasn't until the Brunot Treaty of 1874 that miners were legitimately allowed to work the land by paying the Ute a tribute of 12 cents per acre on disputed lands. This arrangement only lasted until 1879, when the Ute were expelled from Colorado, except for the Southern Ute Indian Reservation in the southwest corner of the state.

Historic Land Grants

Unlike other portions of northern Mexico annexed by the United States (Texas, California, and Arizona), southern Colorado did not see as large an influx of Anglo settlers into the territory, and the Hispanic population remained a majority. However, the adjudication of land ownership claims, especially the land grants from the time of Spanish and Mexican rule were protracted and contentious, and many Hispanic communities and individuals lost lands to legal maneuvering, fraud, and court decisions of questionable legal merit (deBuys 1985). The large Conejos Land Grant, in the southwestern portion of the planning area, was lost to the original land grant heirs in this way.

Transportation

The earliest documented travel route through the planning area was the Old Spanish Trail. Pioneered by Antonio Armijo in 1829 the Old Spanish Trail was a trade route at included several variants that ran between Santa Fe and Los Angeles carrying woolens and slaves for trade in Mexico's California territory. The trail, which likely followed much older Indian trails lost its significance in 1848 with the Treaty of Guadalupe Hidalgo made the area Unites Sates territory. The congressionally designated East Fork of the North Branch of the Old Spanish National Historic Trail runs through the planning area.

Later, transportation routes opened into the area by miners were trails along which people, machinery and supplies could move. One of the first wagon roads ran along the Rio Grande River from Del Norte to Antelope Springs, southwest of the present town of Creede. In 1873 the Del Norte and San Juan Toll Road opened for business, opening a route into the high San Juan Mountains from the San Luis Valley. In 1875 the Antelope Park and Lake City Toll Road was built: today State Highway 149 follows this route.

With the economic growth of southwestern Colorado driven by the mining and lumber industries, so came the demand for the railroad. To answer the call, the Denver and Rio Grande Railroad began construction

of its rail west from Alamosa, Colorado in 1880, entering Pagosa Springs and connecting it to Durango by 1881 (Chappell 1971). Using the main artery of the Denver and Rio Grande Railroad to ship lumber, the New Mexico Lumber Company had envisioned building the Rio Grande and Pagosa Springs Railroad north from Lumberton, New Mexico in 1895. By 1896, however, the railroad had only been built a short distance beyond the Colorado-New Mexico state line. In the spring of 1899, A.T. Sullenberger, owner of the Pagosa Lumber Company, incorporated the Rio Grande Pagosa and Northern Railroad that would run from Pagosa Junction to Pagosa Springs, enabling access to timber lands around Pagosa Springs and the ability to ship the timber to the saw mill in Pagosa Junction. By the fall of 1900, Sullenberger had completed the railroad and by 1912, the Pagosa Lumber Company had added numerous branch lines, thus increasing their supply of logs and the output of the milling operation.

Mining

With the removal of the Ute, Anglo settlement of southwest Colorado began to steadily increase, opening up countless acres of land to mining, livestock, and lumber production. Mining was responsible for the initial economic growth and brought in both people and money to the region. The Creede, Summitville, Platoro, Bonanza and Baca areas within the planning are saw a great influx of mining exploration in the late 1800s, but only the Summitville (gold) and Creede mines (silver) ever produced any appreciable volume. The Summitville mine, on the Conejos ranger district, was in important impetus for growth in the region. Gold was discovered at Summitville in 1870 and by 1885 there were more than 250 individual claims in operation. The site was soon mined out, with the weather of the 3,500-m-high site adding to difficulties. The site was re-opened on a number of occasions for gold or other metals but with little success. The total amount of gold extracted from the site from 1873 until 1959 was around 257,600 troy ounces (8,012 kg). Del Norte and Pagosa Springs were both supply towns for the mine, with travel corridors passing from the towns to the mining community high in the mountains. An edition of the June 27, 1885 The San Juan Prospector *(The San Juan Prospector,* 1885) indicated that the census for Summitville was 354 individuals, and that lodging houses, meals, and mining was in full swing.

In 1883 the first economic mineralization located in the immediate region of Creede was the Alpha-Corsair fault zone, about 2 miles southwest of the present town of Creede. The greater surrounding area had seen mining activity on and off since the early 1860s. In 1884 the Bachelor claim was discovered, and in 1889 N.C. Creede, E.R. Naylor, and G.L. Smith discovered the Holy Moses claim. The discovery of the Holy Moses claim heralded the beginning of the boom in the town of Creede (Huston 2005). The town of Creede was founded in 1891 when Charles F. Nelson built the first cabin there. It became the center of a multitude of mining operations, while the town's namesake, N.C. Creede, was hired by the Holy Moses Mining Company at a salary of $40 a month to prospect. The passage of the Sherman Silver Act of 1890 pushed the price of silver to $1.50 an ounce, up from $0.84, causing a surge of activity in the area (Huston 2005). Rail service reached Creede in 1892, when the railroad magnate David H. Moffatt invested $75,000 of personal funds to get the route built (Huston 2005).

Grazing

The attraction of the area, due to its open, "unused" lands, eventually provided an incentive for ranching development. At first, the livestock industry was limited to a service-oriented industry that functioned to supply meat to a growing mining industry. By the 1880s, the arrival of the railroad in southwestern Colorado insured an increase in demand as markets shifted from local to national. Fueled by new markets, hay production, and summer grazing in the mountains, the livestock industry began to flourish in southwestern Colorado, resulting in increased economic growth of the region. The foothills and alpine meadows of the San Juan Mountains were used by sheep ranchers from the mid-19th century until present day. In the 1880's competition for grazing land and overcrowding made high elevation meadows, where cattle were not particularly successful, especially attractive to sheep ranchers. Livestock was driven into

the high country each summer from northern New Mexico, the San Luis Valley, and towns on the western side of the San Juans. Animals were typically tended in the high country by only one or two herders from late June to mid-September. Herders were initially supplied by pack animals and later supplies were brought in with vehicles from Creede. As National Forests were established in the early 1900s, grazing activities became controlled through permits and fees. Formal stock driveways, such as the La Garita Stock Driveway (5ML684.1), were formalized and managed by the Forest Service (though often along traditional stock driveway routes, which were in turn Native American travel corridors).

The Civilian Conservation Corps

The Great Depression was a brutal financial disaster for the United States and marked a turning point in American political and economic history. Young people entering the work force were most affected by the crisis. Jobs were not available for unskilled laborers and there were limited opportunities for people to even gain experience. In 1933 President Roosevelt introduced the New Deal program to the American people. The New Deal was a combination of short-term strategies designed for immediate relief, and longer-term strategies designed to promote national economic recovery. It included banking practice reforms like FDIC, the Farm Security Administration and the Civilian Conservation Corps. Workers in the New Deal programs operated under several Federal agencies, including the Soil Conservation Service and the National Park Service, but more than fifty percent of all the public works projects administered by the New Deal were undertaken by the Forest Service (Otis 1986). In the plan area, primarily two New Deal programs were at work: the Civilian Conservation Corps and, later, the Works Progress Administration. At least three Civilian Conservation Corps camps were established within the plan area; one the Conejos Ranger District, one on the Saguache Ranger District and one on the Divide Ranger District. The Civilian Conservation Corps enrollees worked to save areas infested with pine bark beetle, built and maintained trails, roads and picnic areas, fought wildfires and engaged in rescue efforts, planted trees, built fences and telephone lines, and installed latrines, drinking fountains and signs and construct extensive erosion control structures throughout the plan area. Of particular note was the work camp established in South Fork that pulled logs from the Forest that were made into kit outhouses that were trucked across Region 2 to newly created Forest Service campgrounds.

Cultural and Historic Resources

Since the 1996 Forest Plan was finalized, a great deal of cultural resource inventory has been conducted and a great number of sites have been documented and evaluated for eligibility to the National Register of Historic Places (NRHP) (Table 1). It should be noted that cultural resource inventories conducted pre-1985 are often suspect in terms of the inflated number of acres surveyed, usually by limited crew, and the less sophisticated tools in tracking survey acres and site locations (Table 2). To address this data gap, archaeologists now conduct sample surveys of older survey areas during new projects to assess accuracy of past surveys, high potential areas and to identify newly exposed sites. More sophisticated tools such as GPS units with sub-meter accuracy and GIS location and site mapping has made site documentation more accurate and by extension, management more effective in the long term.

Table 1. Site Type, evaluation comparison and totals

Year	Prehistoric	Historic	Unknown Component	Eligible Sites	Not Eligible	Unevaluated	Total
1996	456	132	N/A	100	206	282	588
2015	1,513	401	185	304	1,065	730	2,099

Table 2. Acres inventoried for cultural resources

Acres Inventories	Total Survey Acres
Not to Standard (pre-1985)	237,794
To Current Standard	117,356
Total	340,231
Percent Total Inventoried	18%

Site Types

Prehistoric Open Lithic Sites: Located in open topographic situations containing waste flakes and chipped stone tools which can include culturally and temporally diagnostic projectile points.

Prehistoric Open Camp Sites: Located in open topographic situations, these open camp sites consist of features or artifacts that indicate domestic activity. They are defined by the presence of grinding stones, ceramics, or fire-hearths. In addition, waste flakes and chipped stone tools are usually found on these sites.

Prehistoric Sheltered Architectural Sites: Located in rock overhangs, alcoves, and rock shelters, sheltered architectural sites have architectural features such as stone walls and stone structures.

Prehistoric Open Architectural Sites: Located in open topographic situations, open architectural sites contain architectural features such as dry laid stone structures, simple stone alignments, and stone fortifications. Chipped stone tools and grinding stones also have the potential to be found.

Wickiups: Contact-era sites that consist of expedient conical-shaped habitation structures made of tree poles, often free standing or built against larger trees. Known to have been constructed by Utes and Jicarilla Apaches; sometimes solitary and other times in groups.

Rock Art: Rock art sites in the San Luis Valley vary in age from several thousand years to as late as 1890. There also are a number of Hispanic based rock images, probably done by sheepherders, that date from the late 1800s to the 1930s. Rock art can come predominantly in the form of pecked figures (petroglyphs) but some painted figures have also been identified (pictographs).

Stone Cairns: These stone structures are thought to be prehistoric or historic boundary markers or navigational features throughout the watershed area.

Historic Homesteads: Located near permanent water sources with good access to major roads. Cultural material can include historic habitation items such as stove parts, purple and aqua glass, window glass, cans, shoes, bed parts, milled lumber, and cabin structures.

Grazing and Ranching Improvements: These features can include fences, stock watering areas, stock driveways and small cabins located virtually anywhere but often near permanent water sources. Site 5SH1908, the Cochetopa Stock Driveway runs through the watershed and needs more information to determine its eligibility to the National Register of Historic Places.

Prospecting and Mining: Prospecting pits and small mining adits can be found virtually anywhere, depending on the rock out crops. From very steep slopes to open meadows. Mining tools and equipment, along with habitation diagnostics and artifacts may also be present.

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Logging and Tie-hacking: Historic logging and tie-hack sites can include habitation structures and artifacts, staging areas, decks, sawdust piles, and logging equipment. These sites are located within or on the edge of timber stands with decent access.

Historic Roads, Stock Driveways, Railroad Beds and Trails: These features are found virtually everywhere, and often follow aboriginal trails. Often over more easily navigated terrain (valleys, drainages, ridges, passes and saddles).

National Register Listed Properties and Priority Heritage Assets

Only one historic property is listed on the National Register of Historic Places on Rio Grande National Forest system land: The Cumbres and Toltec Scenic Railroad (5CN65). Two others are listed within the planning area but are on private and state land respectively: the Wagon Wheel Railroad (5ML23) and the Seven-Mile Bridge (5ML27). The Cumbres and Toltec Railroad became a National Historic Landmark in 2011. More eligible historic properties should be nominated to the National Register of Historic Places per the mandate of the National Historic Preservation Act.

Table 3. Priority heritage assets in 2015

Description	Smithsonian Number	FS Number
Cumbres and Toltec Scenic RR	5CN65	02090300001
Alamosa Ranger Station	5CN756	02090300114
River Springs Work Center	5CN794	02090300118
English Valley Folsom Site	5RN1028	02090400144
Fitton Guard Station	5RN314	02090400145
Off Cow Camp	5RN315	02090400146
Dog Mountain Petroglyphs	5RN330	02090400147
Upper Beaver Creek CCC Outhouse	5RN518	02090400375
Clay Mine Ore Chute	5ML329	02090400609
Black Mountain Folsom Site	5HN55	02090400925
Ivy Creek Prehistoric Site	5ML633	02090401039
Thirty-Mile Resort	5HN1041	02090401078
Rio Grande Reservoir Work Camp	5HN1379	02090401089
Duncan Townsite	5SH3484	02090700145
Mill Creek Stone Structure Site	5SH354	02090700146
Bunker Old Spanish Trail Site	5SH614	02090700147
Kortright Cabin	5SH1300	02090700197
North Tracy Canyon Prehistoric Camp	5SH143	02090700229
North Pass Peeled Tree Site	5SH1697	02090700295
Pole Creek Cabin Complex	5SH2383	02090700411
Possible Ute Structure	5SH3927	02090700565
Brewery Guard Station M20 Building	5SH1470	02090700704

In 2011, FSM 2360 created a solid foundation for an efficient heritage program that protects historic properties and maximizes their benefits for the public and the agency. Based on federal historic preservation law and FS manual and policy direction, the Heritage Program Managed to Standard allows line officers to assess the health of the program on their units and direct attention to activities that fall

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short of the minimum stewardship level. The Heritage Program Managed to Standard has seven indicators and measures which correspond to key elements of FSM 2360 including planning (2362), inventory, evaluation, & allocation to management use categories (2363), protection and stewardship (2364) and public education and outreach (2365). The seven key indicators are:

1. program planning
2. cultural resource inventory
3. cultural resource evaluation and official designations
4. condition assessment and allocation
5. stewardship and protection
6. public outreach and benefit, and
7. heritage volunteerism

As part of Measure 4, condition assessment and allocation, the heritage program is expected to designate the Priority Heritage Assets on the unit. Priority Heritage Assets represent the "cream of the crop" of the eligible historic properties that require consistent monitoring within the planning area (Table 3).

Traditional Cultural Properties

Traditional cultural properties are those areas of cultural significance identified by extant American Indian tribes and other groups such as Mormon and Hispano communities. These can include but are not limited to mountains, hills, springs, collecting areas, burial grounds or other unique landscape features. The special interest area contains sacred sites that are managed as traditional cultural properties in relation to National Register Bulletin 38 (DOI 1990).

Special Interest Areas

Currently there are four special interest areas designated as part of a Forest Plan Amendment in 2009 based on their cultural and historic values within the current Rio Grande forest plan area. These include the Fremont Historic Area (10,830 acres), the Wagon Wheel Gap Experiment Station (1,585 acres), the Bachelor Loop Historic Area (4,475) and the Baca Mountain Tract special interest areas (1,000 acres).

During the next plan revision one new special interest areas may be proposed for consideration and an existing special interest area may be truncated. Data gathered during the Snow Mesa Sheep Allotment Survey revealed the presence of a unique high altitude prehistoric complex dating from the Middle to Late Archaic. The existing Fremont Historic Special Interest Area, containing several historic camps from the 4th Expedition of John C. Fremont, is quite large. The area needs to be surveyed for the undocumented camps so that some of the acreage can return to the timber base.

The Old Spanish National Historic Trail (OSNHT)

The 1996 Rio Grande National Forest Plan does not recognize the Old Spanish National Historic Trail as it was not congressionally designated until 2002. Pioneered by Antonio Armijo in 1829 the Old Spanish Trail was a trade route at included several variants that ran between Santa Fe and Los Angeles carrying woolens and slaves for trade for horses in Mexico's California territory. The congressionally designated East Fork of the North Brand of the Old Spanish National Historic Trail runs through the planning area generally follows the west flanks of the Sangre de Cristo mountains through Fort Garland, north past the Great Sand Dunes and the town of Crestone and soon thereafter abruptly turning west through the present day town of Saguache. It then winds its way over Cochetopa Pass into the Gunnison Basin. Inventory and research have occurred within the Baca Tract Special Interest Area and in the North Pass area on the

Saguache Ranger District. The Rio Grande National Forest awaits the completion of the Old Spanish National Historic Trail Comprehensive Management Plan being completed by the National Park Service that is the co-lead for the trail with the BLM. The plan is developed to guide management of the trail across six states and several different management zones. Many opportunities for further research education and interpretation exist for this unique resource within the planning unit.

The Cumbres and Toltec Railroad – Denver and Rio Grande San Juan Extension

On October 16, 2012, the Cumbres and Toltec Railroad (5CN65) was listed as a National Historic Landmark. In 1973 it was listed on the National Register of Historic Places and was noted in the 1996 Rio Grande national Forest Plan. A portion of the railroad runs through the Conejos Peak Ranger District of the Rio Grande National Forest. The Historic Sites Act of 1935 authorizes the Secretary of the Interior to identify and recognize nationally significant places that best represent the American experience landmark designation recognizes and encourages the preservation of places that have exceptional value for commemorating or illustrating the history of the United States. The site is currently listed as a Priority Heritage Asset as well with associated sites: 5CN65.2, 5CN499 and 5CN915. National Historic Landmark status requires an elevated analysis during proposed projects that border the site in terms of potential impacts to its place and setting.

Oshá (*Ligusticum porteri*)

Oshá is an ethnobotanically significant plant for which roots are harvested and used as various forms of medicine. Known to grow in portions of the plan area is the oshá (*Ligusticum porteri*) plant also known as “Bear Root” or “Bear Medicine” to some tribal groups and Chuchupate the Hispano communities of the San Luis Valley and northern New Mexico. A member of the carrot family, the plant is locally abundant but nationally rare, known for its many medicinal properties and considered a sacred plant by several Tribes including the Jicarilla Apache, Ute, Navajo and several Pueblo tribes. Its increasing popularity amongst the herbal community and increasing market value have resulted in its disappearance from lower elevations within easily accessed populations through overharvesting. Groups and individuals have been fined for illegal commercial harvest of the root in great volumes on the San Juan National Forest, the Gunnison-Uncompahgre National Forest and the Rio Grande National Forest respectively. In response to this phenomenon, the Rio Grande National Forest began partnering with the Denver Botanical Gardens in 2002 to study the sustainable yield of the plant as a future alternative forest product that could be managed as a commercial product. In 2011, Rio Grande National Forest planning dollars began supporting a multi-year study in partnership with Kansas University to continue the research begun by Denver.

In 2014, Kansas University completed its fourth year on the research plot established on Cumbres Pass under a Challenge Cost Share Agreement. Kansas University has reported on differences in oshá populations between forest and meadow sites, including measurements of root weights per acre and estimates of root market value (Kindscher et al. 2013). Kansas University found that oshá was more abundant in an open meadow compared to a forested site for both aboveground plant biomass and belowground root biomass. These open meadows include past timber harvest areas where oshá grows in abundance. However, little is known about whether holes left by digging oshá plants for roots can be repopulated, and whether this differs in forest or meadow habitats. This is an important first step to understand if we are to provide management recommendations for the sustainable harvest of oshá plants. Kansas University tagged and tracked individual plants and asked whether areas in which individual plants were dug can recover from harvesting pressure. One year after harvest, 79 percent of meadow plots divots and 66 percent of forested plot divots were recolonized where plants were dug one year earlier. Also, divots had a significant amount of oshá cover, an average of 19 percent in meadow plots and 14 percent in forested plots. The results suggest that dug oshá plants can have a fairly strong ability to

repopulate dug areas. However, whether entire oshá populations can be sustainable with harvesting over longer time frames is an important question for future research. Longer term monitoring of oshá populations, and not just individual plants, under different harvesting intensities will help us to provide more comprehensive management recommendations in the future.

The Hispano Cultural Landscape

The planning area boasts a very unique history and cultural continuity amongst the descendants of the early Spanish settlers, especially within the southern portion of the San Luis Valley. During this assessment phase, local historian Dennis López was interviewed regarding the traditional cultural uses of the forest based on his research of Hispano heritage around the San Luis Valley. Mr. López listed ways the forest benefitted early Spanish settlers and present day communities from providing products such as wood, pitch, stone, clay, and minerals to providing sustenance through hunting, fishing, trapping, and grazing opportunities. Mr. López expressed his desire for a symbiotic relationship between people and the land, which would allow cultural and historic uses of the forest to continue sustainably into the future. Mr. López also discussed the negative impacts of historic land grants to local citizens, explaining that the Rio Grande National Forest was originally part of the Conejos Land Grant granted to 40 local families. After the federal government took control of the land and later turned it into the national forest, the descendants of these land grants lost their ability to remain economically sustainable using traditional means. Livestock grazing, wood gathering, and plant harvesting required expensive permits that often proved difficult to afford. Descendants were then driven into low-wage labor positions and became disconnected with the forest and their traditional uses of it. Mr. López stressed the need to identify land grant descendants and to provide them with special use permits. In addition to benefitting the land grant descendants, this action would also benefit forest health by allowing increased harvest of trees and plants to help mitigate fire risk, particularly in light of the recent beetle epidemic.

Thirty-Mile Historic Resort

Thirty-Mile Resort is officially *eligible* to the National Register of Historic Places. As such, the US Forest Service and potential permittees must adhere to the Secretary of the Interior's Standards and Guidelines for Historic Preservation; basically maintaining its historic integrity. This does not mean improvements and upgrades cannot be done, only that consultation with the Colorado State Historic Preservation Office must be accomplished, especially for exterior improvements. Its historic significance can be leveraged substantially by nominating the property to the National and/or State Register of Historic Places which would make it eligible for State Historic Fund grants that can greatly help with restoration, etc. This could be done through many means; for example Hinsdale County could contract that out. The Rio Grande National Forest may also be able to come up with some funds and staff time for a nomination. The site requires a condition assessment to understand what is critical to maintaining the most significant structures before they begin to deteriorate further, which is happening now. The historic significance should be seen as an opportunity, not a hindrance. Hinsdale County benefits greatly from heritage Tourism and Thirty-Mile would fit nicely within that model. Thirty-Mile still has a clientele waiting and hoping to return and there is a growing niche for rustic accommodations. Many of our guard stations that are fully booked that have few amenities. There are people out there looking for this experience it is a niche. Keeping it rustic and historic will draw a unique market. The Forest Service will continue to mitigate hazard trees around the resort. If Hinsdale County wants to do major improvements outside of the Secretary of the Interior's Guidelines, it would be an adverse effect that would require mitigation and a memorandum of agreement with the State Historic Preservation Office.

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Condition of Cultural and Historic Resources

The INFRA database is now the clearinghouse for site and survey data and the means by which targets are tracked within the Heritage Program Managed to Standard framework. The Heritage Program Managed to Standard is designed to be the proxy measure of the overall "health" of cultural resources on the Forest. A concerted effort occurred in the late 1990s to input legacy data since into the database. Much of this data is lacking information and represents a limited amount of information. INFRA allows for better tracking of site condition, but only if it is accurately input from the field. Table 4 portrays a significant data gap in terms of the lack of information on site condition relative to total number of sites.

Table 4. Site condition data in INFRA 2015

Condition	Number of Sites
No Data	1,153
Excellent	21
Undisturbed	64
Light Disturbance	161
Good	49
Moderate Disturbance	207
Fair	40
Poor/Deteriorated/Ruins	67
Heavy Disturbance	68
Destroyed/Total Disturbance	14
Vandalized	22

The Forest Plan requires monitoring of eligible historic properties in relation to project proposal and implementation. Monitoring is based on the evaluation of protection measures for resources discovered during project proposal evaluations, during implementation, or after the implementation of the project. In addition, monitoring of selected significant heritage resources, like Priority Heritage Assets, not associated with specific project proposals, is implemented and reported. Consultation efforts with recognized American Indian Tribes demonstrating concern for areas of cultural importance is also be monitored and reported. Since 2008 only one project, a land exchange, resulted in a determination of adverse effect to historic properties that required a memorandum of agreement with the Colorado State Historic Preservation Office.

Because monitoring reports were inconsistent prior to FY2008, analysis for this assessment begins in that year. Overall, completed projects where heritage resource sites were identified and/or identified for protection indicates that protective measures were adequate with the exception of a few cases. The following illustrates the conditions of significant heritage resources as reveled by the monitoring program.

In 2008, a prescribed burn was implemented outside of the originally analyzed boundaries and severely burned an undocumented and significant site. An after action review revealed that fuels staff had changed the boundary at the last minute, realizing that their original proposal would have made it difficult to control the burn as it lacked adequate control points. The review illustrated very clearly how a small boundary change can result in potential adverse effects to significant heritage resources. The review with both heritage and fuels staff was highly productive, as project leads were able to see and understand the potential effects of fire on heritage resources and the need to work closely with heritage staff up front in

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building and modifying project proposals. In 2008, monitoring also revealed negative impacts to a Priority Heritage Asset from an illegal road.

In 2009, monitoring revealed that historic structure Priority Heritage Assets were being severely impacted by cattle within a range allotment. American Recovery and Restoration Act funding was used to restore the buildings and protect them from cattle encroachment. A prehistoric site was also being negatively impacted by cattle grazing and was mitigated by dropping trees on the site to prevent cattle from loafing. In 2010, it was noted that an eligible site was being impacted by an existing system road. The impacts were mitigated by constructing a stone barrier between the road and an historic structure. In addition, an historic structure that is also an administrative site was found to have a severe leak in the ceilings due to several factors associated with the heating system being in the attic. To address the problem, the heat tape was installed higher on the roof and more insulation was placed in the attic. In 2011, an historic guard station received a condition assessment and its well was tested in anticipation of possibly making the cabin a recreation rental. A ceiling joist inside the structure is cracked and still requires repair. The water tested positive with several impurities that suggest contamination from the nearby Alamosa River.

In 2012, a well and pipeline were proposed near the eligible Tracy Canyon Site (5SH193), a Priority Heritage Asset. A dispute arose when it was discovered that the well and water storage facility would also include a watering trough. The latter was never listed in the original project proposal and would likely result in an adverse effect to the site by drawing and trailing wild and domestic ungulates across it. A compromise was devised wherein the watering trough would be located off site. In 2013, a range conservationist alerted archaeologists to undocumented rock art within a proposed prescribed burn project that had already received State Historic Preservation Office clearance. The site was visited by a Jicarilla Apache elder and deemed to be Apache. Subsequently, fuels specialists designed unit treatment methods that would protect the rock art panels during the prescribed burn and thin the fuels in such a way that will protect the rock art into the future.

Artifact Assemblage

In January of 2010, the Rio Grande County Museum, where the Rio Grande National Forest housed the bulk of its artifact assemblage, suddenly closed its doors. Monitoring of the facility revealed that, without a curator on staff, the Rio Grande National Forest would be out of compliance with CFR 79 that provides standards for federal collections and curation facilities. To address the problem, the agreement with Rio Grande County Museum was cancelled and a new agreement was developed with the Great Sand Dunes National Park and their curation facility. All Rio Grande National Forest artifacts are now housed at the Great Sand Dunes National Park and are now in compliance with CFR 79.

Trends

This section identifies and evaluates trends that affect the condition of, or the demand for, cultural and historic resources or cultural uses, including influences of public use and Forest Service management. Information is largely gleaned by a public meeting held March 10, 2015 at the San Luis Museum in Alamosa, Colorado.

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Table 5. Cultural or historic resources or uses important in and around the planning area

Natural Products		
Tree Products	**Plant Products**	**Additional Products**
Firewood, timber, cottonwood roots, pitch, piñon nuts	Pigments, medicine, oshá, tobacco, yucca, chamisa	Mushrooms, earthen pigments, plaster, clay, minerals, tools
Historic Sites		
Archaeological and cultural sites, historic mine sites, old fisheries, traditional recreational areas		
Ongoing Cultural Uses		
Recreation, fishing, ranching, livestock grazing, irrigation, tourism, hunting, labor economy		
Additional Resources		
History and Archaeology research opportunities, ecosystem service (from balanced ecosystem pre-settlement)		

Table 6. Conditions and trends influencing the condition of, or the demand for, cultural and historic resources (positively and negatively)

Condition or Trend	Influence
Human Trends	
Electronic age	Potentially increases access to maps and information
Lack of knowledge about resources	Causes lack of respect, vandalism, and resource degradation
Unmanaged Recreation	Can negatively impact sites and resources
Illegal Off -road Vehicle Use	Can negatively impact sites and resources
Heritage Tourism	Can increase knowledge and stewardship of historic sites
Increasing human population	Affects use and amount of resources
Tradition of arrowhead collection	Creates tension between tradition and illegal collection
Illegal Artifact Collection	Undermines ability for archaeologists to study the past and inform the public
Grazing and ranching	Can protect important sites if ranchers are informed
Drone use	Positively and negatively impacts forest and its visitors
Greater focus on education & interpretation	Improves knowledge about and respect for resources
Effective tribal consultation	Improves land manager's abilities to manage ancestral landscapes
USFS Management	
Excessive rules and regulations	Hamper current lifeways (e.g. grazing, resource gathering)
Roadless designation/road closure	Impairs access; concentrates use in other areas. Can also protect sensitive archaeological values
Over grazed lands	Can negatively impact archaeological sites, features and artifacts
Management for multiple use	Requires better balance to protect and preserve resources
Bureaucracy	Reduces ability to clear archaeological sites in timely manner; requires frustrating NEPA process
Lack of staff	Causes inadequate monitoring and water maintenance
Inadequate public communication	Imperfectly balances sharing site information with protecting sites
Unrecognized land grant heirs	Negatively impacts many generations due to loss of land and access – heirs deserve recognition and special permits
Decreased logging allowances	Increases fire risk to historic areas and sites
Decreased grazing allotments	Negative impacts to economy and access (via loss of stock trails)
Insufficient site maintenance	Degradation of important cultural and historic sites

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Condition or Trend	Influence
Ecological Conditions	
Loss of ecological balance	Threatens destruction of cultural resources and lifeways
Bark beetle epidemic	Increases fire danger, increases wood gathering opportunities, opens new rangeland, hampers trail access
Catastrophic wildfire	Threatens destruction of burnable historic properties such as Culturally Modified Trees (CMTs), homesteads and prehistoric wickiups
Climate change; drought	Decreases water availability, tourism, and skiing

Table 7. Opportunities within the plan area to foster greater connection between people and cultural and historic resources and landscapes beyond the plan area

Topic	Opportunities
Enhance public education	Increase interpretive signs/maps/information; put informational kiosks at all entries to valley; better inform people of available information; foster understanding of cultural importance and acceptance; use “friends” group and/or volunteers to interpret sites; provide visitor information using current technologies
Partnerships	Partner with local museums, schools and the local Old Spanish Trail Association (OSTA) to enhance education and site stewardship
Engage more youth	Include local history as core curriculum in schools; hold clean-up days with youth; encourage local field trips; use local historians and elders; connect with colleges and universities; help local youth create and maintain garden of traditional plants
Heritage Volunteerism	Continue to partner with groups such as PaleoCultural Research Group (PCRG) and Volunteers Outdoor Colorado (VOC) to provide opportunities to volunteer for public archaeology projects.
Heritage Tourism	Facilitate greater tie-in between the Recreation Rental program of the RGNF that rents historic cabins and guard stations with the greater Heritage Tourism movement of the San Luis Valley.
Increase outreach efforts	Connect to local chambers of commerce and visitors centers; increase public-agency discussions; put USFS office numbers on government listing page in local phone books; open office on Saturdays outside of normal working hours
Historic Thirty-Mile Resort	Partner with Hinsdale County to maintain and run the Thirty-Mile Resort as a heritage destination.
Improve permitting process	Decrease permitting bureaucracy; help people understand importance of permitting process; increase transparency and disclosure; inform permittees about resources on their allotments
Decrease USFS staff turnover	Achieve and maintain connection with community; coordinate volunteers and staff for projects more efficiently and effectively
Reduce negative impacts of connection to land and resources	Avoid overutilization; encourage people to stay on valley floor; identify heritage areas to promote and areas not to advertise; protect sites by telling what they are but not where they are
Connect with cultural uses	Waive fees for traditional artists and community members to harvest traditional resources (e.g., clay, piñon nuts)

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Table 8. The contribution of the use and enjoyment of cultural and historic resources to social, economic, and ecological sustainability

Use or Enjoyment of Resources	Sustainability Contribution		
	Social	Economic	Ecological
Tourism (trains, dunes, historical sites)		X	
Forest permits		X	X
Grazing and ranching	X	X	X
Understanding of importance for conservation and preservation	X		X

Resources at Risk

By and large, most significant cultural resources are in stable condition and are easily avoided by most project activities implemented by the Forest. However there are a few classes of resources that are at risk. The eligible Thirty-Mile Historic Resort of twelve historic structures is in a rapid state of decay. The heritage program hopes to oversee a National Register nomination, a condition assessment and a nomination to the list of Colorado's Most Endangered places.

Continuing drought, loss of vegetation and soil, along with cattle grazing in the lower elevations may lead to increased negative impacts to significant cultural resources, especially prehistoric sites along riparian areas. Continued drought and fuel loading could also lead to catastrophic (high intensity, high severity) fires that could severely impact fire sensitive sites and features such as wickiups, Culturally Modified Trees, homesteads and historic mining and logging sites.

Vandalism and illegal collection continues to put many significant cultural resources at risk on the forest. A culture of arrowhead collection on public lands is pervasive in the San Luis valley, though the younger generation may not be collecting like their parents and grandparents did. Illegal excavation does seem to be on the wane. Rock art is always in danger of being defaced by vandals as was the case on a BLM site in the san Luis valley in 2014. Finally, illegal off-road motorized use can have a devastating effect on significant cultural resources.

Summary / Conclusion

The planning area and the greater San Luis Valley are rich in cultural resources as well as living culture. Cultural resources are those non-renewable resources that require protection under the National Historic Preservation Act. Traditional uses are those activities carried out by extant peoples that provide for cultural continuity through time. Interestingly, there are sometimes inherent conflicts between the two. For example, the traditional activity of grazing, if not managed correctly, can sometimes have detrimental effects on significant cultural resources. This assessment combines information from these two realms that hopefully provides a portrait of the existing condition for both cultural and historic resources themselves, and traditional uses of the Forest.

The planning area contains a high density of cultural resources (prehistoric and historic archaeological sites) that represent a vast array of human occupation over a 12,000 year period. There is a relatively high density of Paleoindian sites compared to other forest units and a very high number of Late Archaic site types. Mining history in the areas of Summitville, Creede and Bonanza is also an important part of the planning area history and continues to be a draw by the public today.

Most of the planning area has not been surveyed for cultural resources, and a good deal of existing survey is not to standard. A predictive model and new GPS and GIS technologies are further refining data

collection in the field. The INFRA database is the primary platform for all site and event data of the Heritage program. While input is improving, the database is still plagued by erroneous or a lack of information. INFRA is scheduled to go live with a spatial component sometime in late 2015. In 2011, FSM 2360 created a solid foundation for an efficient Heritage Program that protects historic properties and maximizes their benefits for the public and the agency; the Heritage Program Managed to Standard that includes seven management indicators.

Since the last plan revision, much has occurred in terms of the management of cultural resources in the planning area. The heritage Program has increased its capacity, though it is still lacking adequate staff to keep up with the growing project load. In 2013, the Rio Grande National Forest separated from the San Luis Valley Resource Area (BLM), creating two stand-alone cultural programs, to the great benefit of both. The spirit of Service First continues however with both staffs collaborating and cooperating on various projects and targets.

In 2011, the Rio Grande National Forest received a great deal of American Recovery and Restoration Act funding to restore the Off Cow Camp, the Fitton Guard Station, the Creede Clay Mine, the Duncan Cabin, the Upper Beaver Civilian Conservation Corps Outhouse and the River Springs Ranger Station. The Off Cow Camp and Fitton Guard Station are now recreation rental sites earning income for the Forest, while the Duncan site awaits possible designation.

The numbers of large-scale vegetation treatment projects are on the rise in the region and across the west, with the potential to negatively impact cultural resources. Presently a programmatic Agreement with the Colorado State Historic preservation office is being developed for a Rio Grande National Forest project that may become the template for Colorado Forests. The programmatic agreement will allow managers to streamline the NEPA process while addressing specific steps in order to remain in compliance with Section 106 of the NHPA.

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