

Rio Grande National Forest-Assessment 15 Designated Areas



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Introduction

Designated areas are specific areas or features within Rio Grande National Forest that have been given a permanent management designation to maintain a unique special character or purpose (36 CFR 219.19).

The definition of designated area is:

An area or feature identified and managed to maintain its unique special character or purpose. Some categories of designated areas may be designated only by statute and some categories may be established administratively in the land management planning process or by other administrative processes of the Federal executive branch. Examples of statutorily designated areas are national heritage areas, national recreational areas, national scenic trails, wild and scenic rivers, wilderness areas, and wilderness study areas. Examples of administratively designated areas are experimental forests, research natural areas, scenic byways, botanical areas, and significant caves (36 CFR 219.19).

Such areas can be landscape scale, such as the Sangre de Cristo, La Garita, Weminuche, and South San Juan Wilderness areas or more specific sites such as the Hot Creek Research Natural Area and John C Fremont Winter Camp Special Interest Area. Overall, these areas are much more strictly managed than the forest as a whole. Some of these areas, however, have seen significant impacts from recreation since the 1996 Forest Plan, related to the growing population in Colorado and increased popularity of hiking fourteen thousand foot peaks, or “fourteeners”. These areas have also seen significant ecological changes related to the dying trees in the spruce-fir forest and the West Fork Fire in 2013. The 1996 Plan preceded the designation and management direction for the Old Spanish National Historic Trail, Cumbres and Toltec National Historic Landmark and Sangre de Cristo National Heritage Area in Alamosa, Costilla and Conejos counties.

In this assessment we will identify and review the current condition of all designated areas on the Rio Grande National Forest and the existing condition as described in the 1996 Forest Plan. Designated areas may include:

- those statutorily designated on the forest by Congress (national heritage areas, national monuments, national recreation areas, national scenic areas, national scenic and historic trails, wild and scenic rivers, wilderness or wilderness study areas and interstate highways);
- those administratively designated by the agency (critical habitat under Endangered Species Act, experimental forest or range, inventoried roadless areas, national natural landmarks, national historic landmarks, national monuments, national recreational trails, research natural areas, nationally or Forest Service-designated scenic byways, significant caves or wild horse and burro territories); or
- those designated by the Regional Forester for their botanical, geological, scenic, zoological, paleontological, historical or recreational values.

We will not, at this time, address the separate but required inventory and evaluation process which is governed by Chapters 70 and 80 of the 2012 Planning Rule. This separate process requires us to identify and evaluate lands which may be suitable for inclusion in the national wilderness preservation system (see FSH 1909.12, Chapter 70) or the wild and scenic rivers system (see FSH 1909.12, Chapter 80). We will conduct these inventories through a separate public engagement process concurrent with our construction of alternatives during the formal plan development process as governed by the National Environmental Policy Act.

Information Sources and Gaps

This section identifies the information sources we used in the Designated Areas Assessment, and identifies information gaps where we may be missing information that would help further clarify specifics related to the Designated Areas Assessment.

Sources

- The current Forest Plan, Record of Decision, FEIS and monitoring reports, including the San Juan and Rio Grande Wilderness Management Direction from August 1998
- Policy, law and Forest Service handbook or manual directives related to designated areas
- Internal, forest-level staff recommendations in addition to annual monitoring reports
- Travel and tourism reports
- Social, environmental and economic research reports
- State comprehensive outdoor recreation plans
- Other federal, State or county land management planning and strategy documents
- Relevant information from assessment phase public engagement, including web survey tools and public meetings in May and July, 2015
- Relevant information from tribal consultation meetings in February, March and May 2015
- National surveys on wilderness and other designated areas
- Colorado Natural Heritage Program Threatened and Endangered Species and potential conservation data
- 1982 Conejos River Wild and Scenic Study

Gaps

- Generally, there is a lack of published documents studying how designated areas contribute to social, economic, and ecological sustainability in the broader landscape affected by the Rio Grande National Forest, specifically the San Luis Valley and Southwest Colorado.
- There is little or no research or survey data to identify whether additional designated areas, especially designated areas other than wilderness, are needed on the Rio Grande National Forest.
- There has been no analysis and consideration of the most recent Colorado Natural Heritage Program data described above.

Existing Forest Plan Direction for Designated Areas

Forest-wide Objectives

Our 1996 Forest Plan provided extensive management direction for all levels of designated areas on the forest in the sections dedicated to forest-wide desired conditions, standards and guidelines and management area prescriptions. Forest-wide objectives that pertain to wilderness and wild and scenic rivers are part of Regional Objective 4, items 4.3 and 4.4, as follows:

Regional Objective 4: Provide for scenic quality and a range of recreational opportunities that respond to the needs of Forest customers and local communities.

4.3 Establish wilderness management practices designed to enhance and perpetuate wilderness as a resource.

- a. Keep wilderness use within determined social capacity.
- b. Avoid resource damage resulting from overuse of designated wilderness.

4.4 Protect the integrity of any eligible wild and scenic rivers.

Management Area Direction

Specific management prescriptions for wilderness areas, ranging from pristine, primitive and semi-primitive, are found under management areas (MAs) 1.11, 1.12 and 1.13. Eligible wild rivers are managed under MA 1.5, research natural areas under MA 2.2, special interest issues under MA 3.1 and eligible scenic rivers under MA 3.4. The associated range of uses, activities, or restrictions associated with the established management areas for each designated area on the Rio Grande National Forest are described in greater detail in various sections of the following report.

Scale of Analysis

Our plan area for this assessment includes all lands contained within the Rio Grande National Forest, regardless of ownership or jurisdiction. When discussing the broader landscape, we primarily focus on Hinsdale, Mineral, Rio Grande, Saguache, Alamosa, Conejos and Costilla counties, known regionally as the San Luis Valley. There are portions of La Plata, San Juan and Archuleta counties which fall within the Weminuche and South San Juan wilderness areas. When we discuss greater population trends driving demand for recreation on the Rio Grande National Forest from surrounding urban areas outside the San Luis Valley; our scale of analysis includes Albuquerque and Santa Fe, New Mexico and Pueblo, Colorado Springs and Denver and Durango, Colorado.

Types, Purposes and Locations of Designated Areas on the Rio Grande National Forest

Identify the types, purposes, and locations of established designated areas within the plan area.
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Congressionally Designated Areas

Congressionally designated areas include national heritage areas, national monuments, national recreation areas, national scenic areas, national scenic and historic trails, wild and scenic rivers, wilderness or wilderness study areas and interstate highways. There are no national recreation areas, scenic areas or interstate highways on the Rio Grande National Forest.

National Heritage Areas

Sangre de Cristo National Heritage Area

The Sangre de Cristo National Heritage Area was designated by Congress in 2009 to promote, preserve, protect and interpret the unique historical, religious, environmental, geographic, geologic, cultural and linguistic resources of the southern San Luis Valley area; specifically Alamosa, Costilla and Conejos counties, which includes large parts of the Conejos Peak District. The Sangre de Cristo National Heritage Area organization completed their management plan in 2013 and has since served as a valuable partner in projects on the forest and neighboring lands, as well as providing input in the Forest Plan Revision process related to cultural, historic, tribal and scenic resources.

The Northern Rio Grande National Heritage Area, designated by Congress in 2006, completed their management plan in 2014. Although not directly located on the Rio Grande National Forest, they are located across the state line in Taos and Rio Arriba counties and share the same management priorities and scenic values as the Sangre de Cristo National Heritage Area.

National Monuments

Great Sand Dunes National Monument / National Park

The Great Sand Dunes National Monument was originally established by Congress in 1932. The 1996 Forest Plan was written when the Great Sand Dunes National Monument was a neighboring federal land management unit to the Rio Grande National Forest along the Sangre de Cristo Mountain Range. In 2000, the monument became a national park. Between 2000 and 2004, with the assistance of the Nature Conservancy; the Park Service and Forest Service acquired the Baca Ranch; part of which was incorporated into the national park, and part of which was incorporated into the Rio Grande National Forest as the Baca Mountain Tract. These new lands were analyzed in the Baca Mountain Tract Forest Plan Amendment which was finalized in 2009.

Wheeler Geologic Area

In 1908, President Theodore Roosevelt proclaimed Wheeler National Monument as Colorado's first National Monument, in honor of Captain George Wheeler who led a surveying team through Colorado in 1874. 1908 was the same year the Rio Grande National Forest was created out of the Cochetopa and San Juan Forest Preserves. The site was originally managed out of the Mesa Verde office in Southwest Colorado which proved a challenge. In 1950, for reasons of administrative efficiency, Congress abolished the site's monument status. In 1969 the Rio Grande National Forest designated Wheeler as a geologic area. In 1993, the La Garita Wilderness was expanded to include Wason Park, Silver Park, and Wheeler Geologic Area. However, the road through Silver Park was not included in the wilderness expansion continuing to allow motorized access to within ½ mile of the geologic area. The site is a popular destination for hikers and motorized vehicles on the Divide Ranger District above Creede.

National Scenic and Historic Trails

Continental Divide Scenic Trail

Approximately 170 miles of the Continental Divide National Scenic Trail lies on the Rio Grande National Forest, from the forests' northern boundary with the Gunnison National Forest to the New Mexico State Line. Designated by Congress in 1978, the nature and purposes of the Continental Divide National Scenic Trail are to:

- provide for high-quality scenic, primitive hiking and horseback riding opportunities; and
- conserve natural, historic, and cultural resources along the Continental Divide National Scenic Trail corridor (2009 Comprehensive Management Plan).

Management of the Trail is consistent with the nature and purposes of the Trail and the 2009 Continental Divide National Scenic Trail Comprehensive Plan and any revisions.

The Continental Divide National Scenic Trail is a quiet, continuous mountain path following the backbone of the Rocky Mountains from Mexico to Canada, linking 20 designated wilderness areas, 20 national forests, three national parks, one national monument, eight Bureau of Land Management resource areas, historic and traditional cultural sites, and primitive wildlands. The Continental Divide National Scenic Trail is the highest national scenic trail, reaching the 14,270-foot summit of Grays Peak,

and connects the Chihuahuan Desert of New Mexico to majestic conifer forests, remote valleys and wild, snow-capped mountains and glaciers on the way to its northern terminus in Glacier National Park. The Trail corridor provides high-quality hiking and horseback riding opportunities and other compatible nonmotorized recreation opportunities; conserves natural characteristics, including solitude, remoteness, primitive recreation, fish and wildlife habitats; and conserves historic and cultural resources. Travelers along this path experience the heart of the Rocky Mountain west: untrammeled mountains that stretch to the horizons, plunging streams, snowfields, glaciers, cobalt-blue lakes, alpine wildflowers, and quiet camping under star-studded skies. Travelers may also encounter ancient travois trails, follow the footsteps of Lewis and Clark or early Spanish explorers, trace the routes of the Apache and follow fresh tracks of grizzlies, wolves, lynx, elk, moose, mountain goats and wolverines.

Old Spanish National Historic Trail

The Old Spanish National Historic Trail was not congressionally designated until 2002, so it is not included in the 1996 forest plan. Pioneered by Antonio Armijo in 1829 the Old Spanish Trail was a trade network with several routes that carried woolens and slaves from Santa Fe to Los Angeles in Mexico's California territory where they were traded for horses. The congressionally designated East Fork of the North Branch of the Old Spanish National Historic Trail runs through the planning area, generally following the west flanks of the Sangre de Cristo mountains through Fort Garland, north past the Great Sand Dunes and the town of Crestone and then turning west through the present day town of Saguache. From there, it 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. There is at least one significant archaeological site related to the Old Spanish Trail on the Forest, called the Bunker Site north of Crestone. The Old Spanish National Historic Trail Comprehensive Management Plan is being completed at this time by the National Park Service and BLM, the designated management agencies for the trail. The plan will 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 on the Rio Grande National Forest.

National Recreation Trails

The Rio Grande National Forest also has two National Recreation Trails, Lost Fork and West Lost Fork on the western edge of the Divide Ranger District.

Eligible Wild and Scenic Rivers

The National Wild and Scenic Rivers System was created by Congress in 1968 (Public Law 90-542; 16 U.S.C. 1271 et seq.) to preserve certain rivers with outstanding natural, cultural, and recreational values in a free-flowing condition for the enjoyment of present and future generations. The Act is notable for safeguarding the special character of these rivers, while also recognizing the potential for their appropriate use and development. It encourages river management that crosses political boundaries and promotes public participation in developing goals for river protection.

It is hereby declared to be the policy of the United States that certain selected rivers of the Nation which, with their immediate environments, possess outstandingly remarkable scenic, recreational, geologic, fish and wildlife, historic, cultural or other similar values, shall be preserved in free-flowing condition, and that they and their immediate environments shall be protected for the benefit and enjoyment of present and future generations. The Congress declares that the established national policy of dams and other construction at appropriate sections of the rivers of the United States needs to be complemented by a policy that would preserve other selected rivers or sections thereof in

their free-flowing condition to protect the water quality of such rivers and to fulfill other vital national conservation purposes (Wild and Scenic Rivers Act, October 2, 1968).

Most rivers are added to the national wild and scenic rivers system (National System) through federal legislation, after a study to determine the suitability for designation. Congress authorizes a study by adding the river to Section 5(a) of the Wild and Scenic Rivers Act (Act). Agencies are also required to consider and evaluate rivers on lands they manage for potential designation while preparing their broader land and resource management plans under Section 5(d)(1) of the Act. Agencies can defer the suitability of rivers found eligible in a land use plan to a separate future study. We are deferring the suitability determination of eligible rivers and streams to a separate future study. As required by the Act, our Forest Plan provides protection for the eligible rivers and streams until we make a decision as to the future use of the rivers and their adjacent lands.

While wild and scenic rivers must be designated by Congress, there are many reaches on the Rio Grande National Forest we are managing as if they were designated after we identified them as eligible under the 1996 Forest Plan. At that time, we used a three-step process to identify segments of fourteen rivers or streams as eligible for inclusion in the national wild and scenic river system. We then classified each of the eligible rivers or streams with wild, scenic or recreational values. The third step, a determination of suitability, we deferred in 1996 to a future date.

Under the National Wild and Scenic Rivers Act of 1968¹, an eligible river is a river that is classified and further evaluated in a suitability study to determine if it should be included in the national wild and scenic river system². To be eligible for designation, a river must be free-flowing and possess one or more “outstandingly remarkable values”. Thus, the eligibility analysis consists of an examination of the river’s hydrology, including any man-made alterations, and an inventory of its natural, cultural and recreational resources. The eligibility analysis provides the basis for the determination of which rivers to recommend as a component of the national wild and scenic river system and considers the appropriateness of Congressional designation and classification as a wild, scenic or recreational river.

A river is classified as “wild,” “scenic,” or “recreational” based mostly upon the amount and type of development along the river and ease of access. Suitable rivers may be recommended to Congress by the administration, and Congress then decides whether to pass a law adding the river to the national wild and scenic river system. Rivers may also be added at the initiative of states by applying to the Secretary of Interior for inclusion in the national wild and scenic river system through Section 2(a) (ii). Wild rivers are those rivers or sections of rivers that are free of impoundments and generally inaccessible except by trail, with watersheds or shorelines essentially primitive and waters unpolluted. These represent vestiges of primitive America.

Eligible Wild Rivers on the Rio Grande National Forest

A 1982 study recommended 36.8 miles of the Conejos River for inclusion in the national wild and scenic river system (25.6 miles as wild and 11.2 miles as recreation). We continue to manage those portions of the Conejos River for their wild and recreational values, but as of October 2015, Congress has not introduced any legislation to formalize our 1982 recommendation. In the 1996 Forest Plan we also identified the North Fork Conejos River, Middle Fork Conejos River, El Rito Azul, Toltec, Hansen Creek and Saguache Creek. We manage eligible wild rivers on the Rio Grande National Forest under Management Area 1.5.

¹ Public Law 90-542

² See Proposed FSH 1909.12, Chapter 80, section 80.5 – Definitions (version 02/14/2013).

Eligible Scenic Rivers

We manage eligible scenic rivers on the Rio Grande National Forest under Management Area 3.4. They include Archuleta Creek, West Fork Rio Chama, East Fork Rio Chama, Lower Rio de los Pinos, portions of Medano Creek, Little Medano Creek, portions of South Fork Rio Grande, Rio Grande (Box Canyon), West Bellows. Scenic rivers are those rivers or sections of rivers free of impoundments, with shorelines or watersheds still largely primitive and shorelines largely undeveloped, but accessible in places by roads.

Eligible Recreation Rivers

We manage eligible recreation rivers on the Rio Grande National Forest under Management Area 4.4. They include Medano Creek, South Fork Rio Grande, Lower Rio Grande River, and Conejos River. Recreational rivers are those rivers or sections of rivers readily accessible by road or railroad that may have some development along their shorelines, and may have undergone some impoundment or diversion in the past.

Wilderness

Section 2 (a) of the 1964 Wilderness Act, clearly describes Congress' intent and purpose for the establishment of the national wilderness preservation system as follows:

In order to assure that an increasing population, accompanied by expanding settlement and growing mechanization, does not occupy and modify all areas within the United States leaving no lands designated for preservation and protection in their natural condition, it is hereby declared to be the policy of the Congress to secure for the American people of present and future generations the benefits of an enduring resource of wilderness." Wilderness is defined as "an area of undeveloped Federal land without permanent improvements which is managed to preserve its natural condition, generally appears to have been affected primarily by the forces of nature, with outstanding opportunities for solitude or a primitive and unconfined type of recreation.

Wilderness may also contain ecological, geological, scientific, educational, scenic or historical values.

The Rio Grande National Forest includes portions of four wilderness areas, the La Garita, Sangre de Cristo, South San Juan and Weminuche, making up almost one quarter of the forest, or roughly 430,000 acres. Per legislative direction, we manage wilderness on the forest to provide outstanding recreation opportunities for solitude or a primitive and unconfined type of recreation. We coordinate management of the Weminuche and South San Juan wilderness areas with the San Juan National Forest. However, primary management responsibility for the South San Juan wilderness lies with the Rio Grande National Forest. We coordinate management of the Sangre de Cristo with the Pike/San Isabel National Forest who serves as the lead forest; and management of the La Garita Wilderness with the Grand Mesa, Uncompaghre and Gunnison National Forest who also serve as the lead forest.

Weminuche

The largest wilderness in Colorado, 164,995 acres of the Weminuche is on the Divide District of the Rio Grande National Forest. The Weminuche was designated by Congress in 1975, and expanded by the Colorado Wilderness Acts of 1980 and 1993. Stretching across the Continental Divide from Stony Pass on the north to Wolf Creek Pass on the south, this wilderness area is one of the most visited in Colorado, thanks to its proximity to Durango on its southwestern edge. Visitation on the Rio Grande National Forest portions of the Weminuche is comparatively low, however, and centered north of Wolf Creek Pass via Lobo Overlook parking area and south of forest road 520 via the 30 Mile Campground parking area. Visitors also access the popular hike to the Rio Grande Pyramid (13,821ft.) at this trailhead. This same

location is where lynx were reintroduced in 1999 by the then-Colorado Division of Wildlife, due to the high quality habitat and remote location and size of the Weminuche. Portions of the Weminuche on the Rio Grande National Forest also include a number of private inholdings related to historic mining activity. This wilderness area also has a number of state and privately owned water infrastructure which require maintenance.

South San Juan

Arguably one of the least visited wilderness areas in Colorado, the South San Juan Wilderness Area was designated in 1980 and straddles the Continental Divide south of Ellwood Pass with 76,640 acres on the San Juan National Forest and 88,923 acres on the Rio Grande National Forest. Located on the Conejos Peak Ranger District, this area is characterized by high, rolling, open parks and remote landscapes. The highest peak in this wilderness area is Conejos Peak at 13,172 feet. Overall recreational use is low in this area, although more use is concentrated on the Rio Grande National Forest side of the divide. As further evidence of the remote nature of the South San Juan, the last known Colorado grizzly bear was killed there in 1979. But rumor, extrapolation, and scientific evidence all suggest strongly that more grizzlies, if they still live anywhere in Colorado, inhabit the recesses of this rugged wilderness, which many claim as the wildest left in the state.

Sangre de Cristo

Located on 120,080 acres on the eastern boundary of the Rio Grande National Forest, this wilderness area was designated in 1993. The heart of this area is the Sangre de Cristo mountain range, a long and very steep range running north to south, with four peaks rising above 14,000 feet. This area supports the highest recreational use of any wilderness area on the Rio Grande National Forest, thanks to those same “fourteeners” which drive increased visitation by hikers and backpackers and proximity to Colorado’s Front Range. This increased visitation has created significant adverse impacts near Willow Lake above Crestone, as well as numerous access points on the Pike/San Isabel side of this wilderness area.

La Garita

This is the oldest wilderness area on the Rio Grande National Forest, having been designated upon passage of the original Wilderness Act in September 1964, with additional acreage added in 1980 by Public Law 96-560 and again in 1993 with the Colorado Wilderness Act (USDA Forest Service 1998). Out of 129,626 total acres, approximately 50,180 acres of the La Garita are located on the Rio Grande National Forest. Also straddling the Continental Divide, this area includes one fourteener, San Luis Peak, on the Gunnison Ranger District. Hikers often access San Luis Peak out of Creede through lands managed by the Rio Grande National Forest. Named after the Spanish word for “the lookout”, this wilderness area also includes the Wheeler Geologic Area. This unusual geological formation is composed of fine, light-gray volcanic ash compressed into rock and wildly eroded into a striking series of domes, spires, caves, ledges, pinnacles, ravines, and balanced rocks. A bumpy four-wheel drive road was left out of wilderness designation, allowing motorized access to within one-half mile of the area.

We manage these four wilderness areas under current forest plan management area prescriptions that are based on the wilderness area’s settings. These settings include pristine wilderness, primitive wilderness and semiprimitive wilderness, which are addressed under Management Areas 1.11, 1.12 and 1.13 respectively.

Administratively Designated Areas

Administratively designated areas include critical habitat under the Endangered Species Act, experimental forest or range, inventoried roadless areas (under the Colorado Roadless Rule), national natural

landmarks, national historic landmarks, national monuments, national recreational trails, research natural areas, State-designated scenic byways, significant caves or wild horse and burro territories. There are no experimental forest of range areas, national natural landmarks, national monuments, significant caves or wild horse and burro territories on the Rio Grande National Forest.

Critical Habitat under the Endangered Species Act

This element will be coordinated with Assessments 1, 3 and 5 when they are completed.

Inventoried Roadless Areas

The Rio Grande National Forest has 53 Colorado Roadless Areas, consisting of approximately 518,620 acres. We considered these backcountry areas in the 1996 Forest Plan and subsequently mapped and identified them under the Colorado Roadless Rule, which provides management direction for conserving and managing roadless areas on National Forest System lands in Colorado. The Colorado Roadless Rule was initiated as an opportunity to refine and update the Roadless Area Conservation Rule (2001 Roadless Rule). The final Rule provides for management of 4.19 million acres of National Forest System land within Colorado and conserves roadless area values for future generations, while providing for activities important to the citizens and economy of Colorado. The Rule prohibits tree cutting, road construction and reconstruction, and the use of linear construction zones³ within roadless areas, with some exceptions. These exceptions address limited state-specific situations. Within a subset of the roadless acres, called upper tier, fewer exceptions apply. Upper tier designation provides for a higher level of conservation of roadless area characteristics where the need for additional restrictions (fewer exceptions) was identified based on public input.

The Colorado Roadless Rule, finalized in 2012, supersedes the 2001 Roadless Rule and current forest plan direction within Colorado Roadless Areas. Forest plan direction that is more restrictive than the applicable Colorado Roadless Area direction will be followed. The Colorado Roadless Rule includes processes to make administrative corrections and boundary modifications, both of which only the Chief of the Forest Service is authorized to approve.

Under the Colorado Roadless Rule, road construction and reconstruction is allowed under certain conditions in limited areas, however road construction and reconstruction is not allowed on the majority of the inventoried roadless areas. We placed almost all of the roadless areas in the Backcountry Management Area 3.3 in order to provide protections that would allow for future consideration of these areas as potential wilderness.

National Historic Landmark Scenic Railroad

The Cumbres and Toltec Scenic Railroad was named a National Historic Landmark in 2012. It is a narrow gauge heritage railroad running between Chama, New Mexico and Antonito, Colorado. It runs over 10,015 feet at Cumbres Pass and through Toltec Gorge, from which it takes its name. This scenic railroad was designated by the States of Colorado and New Mexico, and is managed by the two States through a compact. We manage the corridor through which the railroad passes under Management Area 4.21 - scenic byways and scenic railroads. For more information on the railroad, see the scenic byway and railroad discussion on page 15 as well as Assessment 9-Recreation.

³ A linear construction zone is defined as a temporary linear area over 50 inches wide that is used for motorized transport by vehicles or construction equipment to install a linear facility such as a power line, telecommunication line, pipeline or water conveyance structure.

Scenic Byways

Two State-designated scenic byways, the Silver Thread and Los Caminos Antiguos Scenic Byways cross the Rio Grande National Forest. While the two scenic byways are State-designated, we manage the corridors they run through under Management Area 4.21 - scenic byways and scenic railroads. The Silver Thread Scenic Byway is a scenic route along State Highway 149. It includes the historic silver mining towns of Lake City and Creede and ends in South Fork. There are geologic features, historical sites, wildlife and opportunities to participate in a variety of summer and winter recreational activities along the route. The Los Caminos Antiguos Scenic Byway (“The Ancient Road”) explores the rich cultural heritage of the San Luis Valley. Thirty-five miles of this 129-mile scenic byway are on the Forest (along State Highway 17 from the New Mexico state line to the Forest boundary). Both scenic byways meet the U.S. Secretary of Transportation’s criteria as national scenic byways based on their archaeological, cultural, historic, natural, recreational, and scenic qualities. There are 150 such designated scenic byways in 46 states.

Purpose of Scenic Byways

The National Scenic Byways Program is part of the U.S. Department of Transportation, Federal Highway Administration. Scenic byways are established to help recognize, preserve and enhance selected roads throughout the United States. The Federal Highway Administration’s May 18, 1995 interim policy provides the criteria for inclusion in the National Scenic Byways Program.

Research Natural Areas

There are six administratively designated research natural areas totaling 22,678 acres; 11,824 acres are within designated wilderness and 10,854 acres are outside wilderness. The research natural areas are Mill Creek (2,555 acres), North Zapata (6,114 acres), Deadman Creek (4,777 acres), Spring Branch also known as Cedar Springs(4,053 acres), Hot Creek (1,773 acres), and Finger Mesa (3,406 acres). We manage these areas under Management Area 2.2.

Purpose of Research Natural Areas

Research natural areas are permanently protected and maintained in natural conditions for the purposes of conserving biological diversity, conducting non-manipulative research and monitoring, and fostering education. Research natural areas are managed to maintain the natural features for which they were established and to maintain natural processes. Because of the emphasis on natural conditions, they are excellent areas for studying ecosystems or their component parts and for monitoring succession and other long-term ecological change. Non-manipulative research and monitoring activities are encouraged in research natural areas and can be compared with manipulative studies conducted in other areas. Research natural areas serve as sites for low-impact educational activities. These areas are available for educational use by university and school groups, native plant societies, and other organizations interested in pursuing natural history and educational field trips.

Special Interest Areas

The purpose of special interest areas is to offer a variety of settings and visitor experience opportunities that stress independent exploration with basic interpretation, either on the ground or through interpretive brochures. We manage special interest areas to maintain the values that make them unique. We have seven special interest areas on the Rio Grande National Forest totaling 3,950 total acres. Our special interest areas in the current Forest Plan were administratively designated⁴ because of their botanical, geological,

⁴ Administrative designation differs from Congressional designation. Administrative designation is a function of the executive branch; so the President of the United States, or his designated official (the Secretary of Agriculture in this

or historical value. The seven special interest areas are Blowout Pass (geological), Devil's Hole (geological), John C. Fremont (historical), Wagon Wheel Gap Watershed Experiment Station (historical), Bachelor Loop (historical), Elephant Rocks (botanical), and Ripley Milkvetch (botanical). We manage these areas under Management Area 3.1.

Range of Uses, Management Activities and Management Restrictions

Describe the range of uses, management activities, or management restrictions associated with the established designated areas in the plan area.

Wilderness

General prohibitions have been implemented for all national forest wildernesses in applying the provisions of the Wilderness Act of 1964. The Wilderness Act requires we manage human-caused impacts and protect wilderness character to insure that it is "unimpaired for the future use and enjoyment as wilderness." Motorized and mechanized equipment and mechanical transport is generally prohibited on all federal lands designated as wilderness. This includes motor vehicles, motorboats, motorized equipment, bicycles, hang gliders, wagons, carts, portage wheels; and landing aircraft, including helicopters, unless provided for in specific legislation. Under the agency's minimum requirement analysis process, we may consider the use of motorized equipment or mechanical transport at a project level with review at Regional Office level.

For detailed Forest Service policy regarding the management of uses in wilderness, see FSM 2300, Chapter 2320 – Wilderness Management.

National Scenic Trail

The Continental Divide National Scenic Trail crosses several forest plan management areas. The primary policy and management direction for the Continental Divide National Scenic Trail is to administer the trail and its corridor consistent with the nature and purposes for which it was established; which are:

- to provide for high-quality scenic, primitive hiking and horseback riding opportunities; and
- to conserve natural, historic, and cultural resources along the trail corridor.

The National Trails System Act requires the Secretary of Agriculture, in consultation with other affected Federal agencies, the governors of affected states, and the relevant advisory council established pursuant to the Act, to prepare a comprehensive plan for the management and use of the Continental Divide National Scenic Trail (16 U.S.C. 1244(f)). The Forest Service goal in 1981 for the Continental Divide National Scenic Trail Comprehensive Plan was to provide a uniform trail management program reflecting the purposes of the Continental Divide National Scenic Trail while providing for use and protection of the natural and cultural resources along the Continental Divide National Scenic Trail. The Chief of the Forest Service approved the Comprehensive Plan for the Continental Divide National Scenic Trail in 1985.

In 2009, the Comprehensive Plan was amended to provide a uniform Continental Divide National Scenic Trail program reflecting the purposes of the National Scenic Trail system as a whole, and identifying the

case) can independently designate a special interest area; in contrast to a wilderness area, which must be Congressionally designated via legislation.

allowed uses that are designed to protect the natural and cultural resources found along the rights-of-way and located route on lands of all jurisdictions.

For the management uses and restrictions on the Continental Divide National Scenic Trail, see the 2009 Continental Divide National Scenic Trail Comprehensive Plan (USDA Forest Service 2009).

Eligible Wild and Scenic Rivers

Congress passed the Wild and Scenic Rivers Act at the height of the modern dam-building era in order to ensure that the construction of new dams on rivers is balanced with the protection of select free-flowing rivers that possess nationally significant values. The Wild and Scenic Rivers Act protects rivers in five major ways:

- It bans the construction of new federally-licensed dams and other harmful water development projects
- It ensures water quality is maintained and, where possible, enhanced
- It creates a federally-reserved water right for the minimum amount of water necessary to maintain a river's social and ecological values
- It prohibits any activities that would harm a river's values
- It requires the development of a Comprehensive River Management Plan to guide management along designated rivers for a period of 10-20 years

Our Forest Plan provides protection for eligible rivers until we make a decision as to the future suitability and use of the rivers and their adjacent lands. In essence, we manage all eligible wild, scenic and recreation rivers to maintain their qualifications for designation.

First and foremost, the Wild and Scenic Rivers Act ensures that no new federally-licensed dams or trans-basin diversions are constructed on designated rivers. Wild and scenic designation also limits mining, oil and gas drilling, commercial timber harvest, and major highway and bridge construction projects. Unlike the Wilderness Act, however, the Wild and Scenic Rivers Act does not prohibit the use of motorized vehicles on land or on water within designated corridors. Land managers may restrict motorized use within designated river corridors through the river management planning process; however it is typically allowed to continue if it was an existing activity.

Under the Act, the federal government has no authority to regulate or zone private lands. Land use controls on private lands are solely a matter of State and local zoning. Although the Act includes provisions encouraging the protection of river values through State and local land use planning, there are no binding provisions on local governments. In the absence of State or local river protection provisions, the federal government may seek to protect values by providing technical assistance, entering into agreements with landowners; purchasing easements, exchanging lands, or acquiring private lands.

Wild and scenic designation does not bar public access to public lands within designated river corridors, and it does not opens private lands to public access within designated river corridors. Fishing and hunting are regulated under State laws. Where hunting and fishing are allowed prior to designation, they may continue. The agency managing the river may, however, establish no hunting zones for public safety or for other reasons in consultation with the fish and wildlife agencies of the State(s). An example of such a place is along designated reaches located within national parks where no hunting is allowed. In general, wild and scenic river designation does not restrict any boating access.

For all eligible wild, scenic and recreation rivers on the forest, in the event an action could threaten any eligible rivers values, we will conduct a suitability study and decide whether or not to recommend the

river for addition to the national wild and scenic river system. We do not permit management actions, proposed new uses or new facilities on National Forest System lands if they alter the wild and scenic characteristics of the land and physical resources, or affect the eligibility, classification, or potential suitability of the area.

Eligible Wild Rivers

While we prohibit timber harvest in eligible wild river corridors, we do permit cutting trees if it is needed to meet other management objectives (i.e., trail clearing or fire control).

We maintain current water-use and stream-protection agreements made through negotiation with local water users (see the Wild and Scenic Rivers Act P.L. 90-542, as amended, sec. 10(e), sec 12(b) and sec. 13(b) for additional information).

We prohibit roads and overland motorized travel within one-quarter mile of the river.

We permit livestock grazing.

We do not allow locatable mineral⁵ entry and while we have made these areas available for oil and gas leasing we do not permit surface occupancy (Source: Forest Plan Management Area 1.5) (see Assessment A10 – Energy and Minerals for more information on mining, oil, and gas).

Eligible Scenic Rivers

While we have not included these lands in the suitable or scheduled timber base, timber harvest is allowed.

We do not allow management actions, proposed new uses, or new facilities on National Forest System lands if they alter the scenic characteristics of the land and physical resources, or affect the eligibility, classification, or potential suitability of the area.

To the extent we are authorized under law to control stream impoundments and diversions, the free-flowing characteristics of the study river cannot be modified by new structures that were not part of conditions when eligibility was determined. However, we will ensure existing water-use and stream-protection agreements made through negotiation with local water users continue (Wild and Scenic Rivers Act P.L. 90-542, as amended, sec. 10(e), sec. 12(b), and sec. 13(b)).

We permit livestock grazing.

While we allow locatable mineral entry and we have made these areas available for oil and gas leasing, we can require surface management stipulations to any permit to protect resources including soil, water, and scenery (controlled use stipulations) (see Assessment A10 – Energy and Minerals for more information on mining, oil, and gas).

We allow overland motorized travel within one-quarter mile of the river (Source: Forest Plan Management Area 3.4).

⁵ Locatable minerals are called "hard rock" minerals and may include deposits of iron, gold, silver, lead, zinc, copper, and molybdenum.

Eligible Recreation Rivers

While we have not included these lands in the suitable or scheduled timber base, timber harvest is allowed. We allow silvicultural practices in the river corridor, provided they do not have substantial adverse effects on the river or the river-corridor landscape.

We do not allow management actions, proposed new uses, or new facilities on National Forest System lands if they alter the recreation characteristics of the land and physical resources, or affect the eligibility, classification, or potential suitability of the area.

To the extent we are authorized under law to control stream impoundments and diversions, the free-flowing characteristics of the study river cannot be modified by new structures that were not part of conditions when eligibility was determined. However, we will ensure existing water-use and stream-protection agreements made through negotiation with local water users continue (Wild and Scenic River Act P.L. 90-542, as amended, sec. 10(e), sec. 12(b), and sec. 13(b) for additional information).

We allow livestock.

While we allow locatable mineral entry and we have made these areas available for oil and gas leasing, we can require surface management stipulations to any permit to protect resources including soil, water, and scenery (controlled use stipulations) (see Assessment A10 – Energy and Minerals for more information on mining, oil, and gas).

We allow overland motorized travel is allowed within one-quarter mile of the river (Source: Forest Plan Management Area 4.4).

Research Natural Area

We manage these areas to protect or enhance exemplary ecosystems designated for non-manipulative research, education, and maintenance of biodiversity.

We prohibit timber harvest in these areas, and allow livestock grazing by exception only.

We may permit motorized and mechanized use if existing routes predate the establishment of the research natural area, but we generally prohibit this type of use unless it is for educational purposes.

While we do not allow locatable mineral entry, we have made these areas available for oil and gas leasing with a no surface occupancy stipulation. We do not allow development within these areas and recreation use is allowed with few restrictions.

These areas are not included in the suitable timber land base.

We do not allow buildings and developed recreation sites, unless there are exceptional circumstances (such as historic sites eligible for or listed in the National Register).

We only allow habitat manipulation to protect threatened, endangered, and sensitive species, or where it is necessary to perpetuate or restore natural conditions.

We permit special uses only when they do not conflict with the values for which the research natural area was established.

We prohibit livestock grazing except for recreational livestock where this use does not threaten the values for which the research natural area was established. The exception is the Hot Creek Research Natural Area where we have issued a permit for commercial livestock grazing.

We prohibit new trail construction unless it is to replace existing trails that are damaging resources (Source: Forest Plan Management Area 2.2).

Special Interest Areas

We manage special interest areas to protect or enhance their unique characteristics. Typically, special interest areas contain unique botanical, geological, historical, scenic, or cultural values.

While we prohibit timber harvest in these areas, we do allow livestock grazing.

We allow both motorized and non-motorized recreation.

We have made these lands available for oil and gas leasing with the stipulation that no surface occupancy is permitted.

We allow uses that emphasize education and recreation where the use does not conflict with the values for which the special interest area was established (Source: Forest Plan Management Area 3.1).

Scenic Byways and Scenic Railroad

We manage these areas to protect or preserve the scenic and recreation values and uses within the designated scenic byway and national historic landmark scenic railroad corridors, while managing the multiple-use values of the landscape.

Management uses we permit include livestock grazing and timber harvest, as these areas are included in the suitable timber land base. We design these activities so that they resemble naturally occurring patterns or disturbances in the landscape.

We allow both motorized and non-motorized recreation in these areas.

While we have made these lands available for oil and gas leasing, we can require surface management stipulations (controlled surface use stipulations) to protect resources (Source: Forest Plan Management Area 4.21).

Backcountry Areas

We manage these areas to maintain plant and animal habitats that are shaped primarily through natural processes, and to provide backcountry experiences to the public in areas where there is little evidence of human activities.

We prohibit timber harvest in these areas.

We allow livestock grazing.

We allow motorized and non-motorized recreation.

We have made these lands available for locatable mineral entry and oil and gas leasing with the stipulation that no surface occupancy is permitted.

We prohibit ATV game retrieval off designated trails (Source: Forest Plan Management Area 3.3).

Existing Management Plans

Identify the existing plans for the management of established designated areas within the plan area, such as comprehensive plans for national scenic or historic trails.

There are at least three individual management plans for designated areas on the Rio Grande National Forest. The Continental Divide National Scenic Trail Comprehensive Management Plan was initially approved by the Chief of the Forest Service in 1985. In 2009, the Comprehensive Plan was amended. The goal of the 2009 Comprehensive Plan is to provide a uniform Continental Divide National Scenic Trail program that reflects the purposes of the National Scenic Trail system, and identifies the allowed uses that are designed to protect the natural and cultural resources found along the rights-of-way and located route on lands of all jurisdictions.

The San Juan and Rio Grande National Forests completed a Wilderness Management Plan Direction Forest Plan Amendment in 1998, focused on the Weminuche and South San Juan Wilderness Areas. This plan amendment also provides us with general guidance for all four wilderness areas on the forest.

Potential Need and Opportunity for Additional Designated Areas

This Designated Areas Assessment does not include an inventory and evaluation of individual land areas for potential designations. The evaluation of potential wilderness includes a detailed assessment of the capability, availability and need for additional wilderness. The need for an area to be designated as wilderness is determined through an analysis of the degree to which it contributes to the overall National Wilderness Preservation System. Need is also assessed based on public input to the evaluation report. Before the responsible official invites comments on the proposed revised plan, an inventory and evaluation is required for wilderness (see FSH 1909.12, Chapter 70).

During the summer of 1994, we contracted with the Colorado Natural Areas Program, (a Colorado State government program), to inventory potential candidate research natural areas. The Colorado Natural Areas Program is responsible for identifying, designating and protecting natural features that are of statewide significance. This includes areas with unique geology, rare species habitats or pristine examples of native ecosystems. The Colorado Natural Areas Program enters into land management agreements with federal, state, local and private landowners to protect and, in some cases, promote the values of natural areas. There are currently 78 designated natural areas and 31 sites registered as potential natural areas. The Colorado Natural Areas Program provides skilled volunteer stewards, land management advice, and protection assistance to the owners and managers of designated natural areas.

The Colorado Natural Areas Program identified seven potential research natural areas on the Rio Grande National Forest and provided detailed reports for each candidate research natural area. The reports include descriptions, distinguishing features, and acreage by vegetation cover types (see FEIS Appendix D). Six of the seven research natural areas identified by Colorado Natural Areas Program have been administratively designated as research natural areas in our current Forest Plan. We may identify a potential need to administratively designate the seventh research natural area in the revised Forest Plan. We also may need an update to the 1994 potential research natural area candidate inventory to determine if, based on changed conditions or new information, we should consider additional areas as potential candidate research natural areas.

Are there published documents or proposals that identify an important need or potential for a designated area? For example, a research report may indicate a need for an experimental forest within the plan area.

In our 2013 Forest Plan Monitoring Report, our heritage resource specialist recommends designating the Natural Arch as an eligible traditional cultural property or as a special interest area in the revised Forest Plan. In the 2013 monitoring report, our heritage resource specialist also recommended designating the Rio Grande Pyramid as a special interest area in the revised Forest Plan. We have also identified this site as potentially needing more protection.

Our current Forest Plan identifies (but does not administratively designate) several potential special interest areas. These include Devils Hole Geologic Area, Summer Coon Volcano Geologic Area, West Lost Trail Creek Landslide Geologic Area, and Brewster Stageline Historic Area. We also recommend further study of the lower-elevation reaches of Deadman Creek.

Are there other proposals for designated areas before Congress, in proposals from collaborative efforts or from previous plans?

In 1982, the Secretary of Agriculture recommended to Congress designating 36.8 miles of the Conejos River as part of the national wild and scenic river system (25.6 miles as wild and 11.2 miles as recreation). As of 2015, Congress has shown no interest in formalizing that recommendation into a designation. There are no other known proposals before Congress for designated areas on the Rio Grande National Forest.

Are there specific land types or ecosystems present in the plan area that are not currently represented or minimally represented?

Generally, all of the wilderness areas on the Rio Grande National Forest are high elevation. An objective of the national wilderness preservation system is a system of lands that reflect the rich ecological diversity of all of the lands across the United States, including ecological types and vegetation communities such as aspen, whitebark pine, sagebrush, grasslands, and xeric shrublands, and the living organisms that rely on those communities.

The Rocky Mountain Region's Wilderness Needs Assessment (Carr 1994) identifies 14 of the Rocky Mountain Region's 21 ecological land type associations as represented in the national wilderness preservation system. On the Rio Grande National Forest there are 13 distinct land type associations. The Wilderness Needs Assessment identifies the following land type associations, which are found on the Rio Grande National Forest, as minimally represented in the National Wilderness Preservation System.

- Western wheatgrass and other low-elevation grasslands on alluvial fans
- Arizona fescue on mountain slopes
- Pinyon on mountain slopes
- Ponderosa pine and Douglas-fir on mountain slopes
- White fir and Douglas-fir on mountain slopes.

The 1994 Wilderness Needs Assessment further states that both the Park Service and the Bureau of Land Management are better suited to meet the need for representing wilderness in these land type associations (FEIS page 3-354). We concluded in our current Forest Plan FEIS that additional wilderness areas are unneeded on the Rio Grande National Forest. This determination was based on the following:

- There are 27 designated wilderness areas, totaling 2,290,810 acres within a 100-mile radius of our Forest. Twenty-two percent of our Forest land base is in wilderness. These areas have a wide variety of land type associations, wildlife species, and habitats, as well as opportunities to experience wilderness.
- Wilderness areas, and the opportunities they provide, are not in short supply on our Forest, or near it.
- There is a demand for primitive and semi-primitive recreation opportunities (both motorized and non-motorized) outside wilderness.
- Our Forest has numerous inventoried roadless areas (aka unroaded areas) outside wilderness that can provide primitive and semiprimitive recreation opportunities.
- Given the availability of wilderness on our Forest and nearby, these areas provide the necessary capabilities and opportunities to meet the projected increase in recreation use and demand for wilderness during our current planning period.

Are there rare or outstanding resources in the plan area appropriate to specific types of designated areas?

There are outstanding botanical, aquatic, and geological resources that could be appropriate for specific types of designated areas. Many of the existing special interest areas could potentially be expanded and new areas that contain outstanding botanical, aquatic or geological resources could be administratively designated as special interest areas in our revised Forest Plan. Of all alternatives in the current Forest Plan, the selected Alternative G contained the least amount of acreage allocated to special interest areas. It is reasonable to consider the additional acreage identified in the other current Forest Plan alternatives for potential additions to the existing special interest areas. For more information on rare plants on the forest, see Assessment 5 – At-risk Species.

Are there known opportunities to highlight unique recreational or scenic areas in the plan area to provide for sustainable recreation opportunities?

We have 53 inventoried roadless areas covering approximately 518,620 acres. These inventoried roadless areas are mostly classified as primitive, semi-primitive nonmotorized and semiprimitive motorized in the recreation opportunity spectrum (see Assessment 9 - Recreation for detailed information regarding the recreation opportunity spectrum). Inventoried roadless areas are essentially unmodified natural environments that support a vast array of recreational activities ranging from hiking in the backcountry, snowmobiling on groomed trails and camping in developed sites to hunting big game in remote areas. Interaction among users is low and evidence of other users is minimal. We manage these areas with minimum on-site controls or restrictions. We often permit motorized use but frequently limit it to trails and any existing roads. Inventoried roadless areas are remnants of vast landscapes substantially unmodified by high-intensity management activities (e.g., timber harvesting, mineral extraction, road construction, developed recreation). As noted in a national assessment report on outdoor recreation (Cordell and others 1999), the demand for primitive, semiprimitive-nonmotorized, and semiprimitive-

motorized classes and dispersed recreation opportunities are increasing in an environment of diminishing supply. The inventoried roadless area setting characteristics create a unique opportunity to sustain backcountry recreation opportunities in a mostly unmodified natural environment that also contains high scenic value. Our inventoried roadless areas provide a known opportunity to highlight and sustain settings that are increasingly in short supply.

The Rio Grande National Forest inventoried roadless areas are also identified as backcountry areas in our current Forest Plan. These backcountry areas provide outstanding opportunities for remote, adventure based recreation (both motorized and non-motorized). Some of these backcountry areas could potentially be statutorily designated as national recreation areas. The system of national recreation areas offers a wide spectrum of recreation opportunities, from urban to primitive, in line with certain ecosystem protections unique to that area.

There are eligible wild and scenic rivers or river segments on the Rio Grande National Forest that could be statutorily designated and included in the national wild and scenic river system. The Chief recommended 36.8 miles of the Conejos River to Congress for designation in 1982 (25.6 miles as wild and 11.2 miles as recreation) yet no legislation has been introduced for such a designation as of 2015. The outstandingly remarkable values identified for the Conejos in the 1982 report include scenery, recreation, geology, fish and wildlife (USDA Forest Service 1979).

Is there scientific or historical information that suggests a unique opportunity to highlight specific educational, historic, cultural, or research opportunities?

In our 2013 Forest Plan Monitoring Report, our heritage resource specialist recommends designating the Natural Arch as an eligible traditional cultural property or as a special interest area in the revised Forest Plan. Our tribal consultation supports this recommendation, as discussed in Assessment 13 – Cultural and Historic Resources. Our heritage resource specialist for the Monitoring Report also recommended we highlight this area through outdoor interpretation and education opportunities. Wilderness and roadless areas may also contain additional traditional cultural properties⁶ and sacred sites⁷.

We have completed hundreds of evaluations for the National Register of Historic Places (National Register) on documented heritage resource sites on the Rio Grande National Forest. One site, the Cumbres and Toltec Scenic Railroad was designated a National Historic Landmark in 2012. The National Register requires each eligible site be nominated to the National Register (FEIS page 3-379). Some of these sites may also contain unique educational, cultural, historical and research opportunities that would suggest potential designation as a special interest area.

Wilderness, inventoried roadless areas and research natural areas are recognized in numerous reports as important areas for research. The Final EIS for Rulemaking for Colorado Roadless Areas⁸, identifies roadless areas as important reference landscapes in which to base research that may be useful as a comparison to study the effects of more intensely managed areas.

⁶ Traditional cultural properties are places, sites, structures, districts, or objects that are historically significant in the beliefs, customs, and practices of a community.

⁷ Sacred sites are places that are determined sacred by virtue of their established religious significance to or ceremonial use by a Native American religion.

⁸ Federal Register Vol. 76, No. 73. April 15, 2011:212272-21294.

Has a need or opportunity for specific designated areas been identified in the plans of States, Tribes, counties, and other local governments?

Our tribal consultation prior to and during the revision public engagement process has generated discussion around special designations for the Natural Arch area on the Divide District, as well as Blanca Peak. For more information on these discussions, see Assessment 13 – Cultural and Historic Resources.

Are there known important ecological roles such as providing habitat or connectivity for species at risk that could be supported by designation?

Both designated wilderness and roadless areas can support important ecological roles including a strong emphasis on the conservation of biodiversity. In the Rocky Mountain Region, designated wilderness areas provide habitats for numerous elements of biological diversity which in practice has a strong species-based focus on rare aquatic and terrestrial plants and animals, federally listed threatened and endangered species, Forest Service sensitive species, and examples of unique or uncommon plant communities. Increasing the size of current designated wilderness areas is also an important option that can help support biological diversity and protect habitat for rare and endangered plant and animal species.

Numerous assessments stress the importance of wilderness and roadless areas for native fish stocks. Most of these assessments do not differentiate between wilderness and roadless, rather combine the two into the “unroaded” category. These assessments find that current strongholds (most secure and robust populations) are dependent on wilderness and roadless areas. Given the protection of roadless and wilderness, some of our strongest populations for native fishes are in wilderness and other “unroaded” areas of our National Forest System lands.

Wilderness and other natural resource managers need to determine whether wilderness designation is the appropriate management tool for the conservation of biodiversity. If recovery of vegetation, habitat or native fish stock requires extensive restoration and manipulation of the environment to recover and expand populations, then wilderness designation may not be the appropriate tool. We can use other designations, including research natural areas, experimental forest and special interest areas that may be more beneficial to managing terrestrial and aquatic plant and animal species. Extensive restoration may be needed before a wilderness or other designation can be made.

Experimental forest designations focus on basic and applied studies on research themes including forest, stream, and rangeland ecology; hydrology; biological diversity; and effects of forest and range management on the sustainability of ecosystems. Long-term data on climate, vegetation, streamflow, and other site factors document environmental change and support research programs that focus on ecological integrity. Some of this work occurs in the context of national and international science networks, such as the National Science Foundation's Long-Term Ecological Research Network and The United Nations Educational, Scientific and Cultural Organization's Man and the Biosphere program. We could utilize an Experimental Forest designation to not only make discoveries but also demonstrate research results to cooperators and stakeholders for how forests change over time as climate and other factors change.

Contribution of Designated Areas to Sustainability

How do designated areas contribute to social, economic, and ecological sustainability?

Sustainability in the context of designated areas places an emphasis on valuing, protecting and preserving special areas and their unique botanical, aquatic, geological, scenic, cultural, historical, recreational, and research benefits for present and future generations. There a number of designated areas on the Rio Grande National Forest. However, the most prominent in terms of amount and spatial distribution across the landscape is wilderness. There is also a substantial amount of literature that addresses the values, contributions and benefits of wilderness. Consequently, our assessment of the contribution of designated areas to sustainability focuses on wilderness and the literature that addresses and supports the benefits and values of wilderness. While the focus of this section is on wilderness, the concepts and findings extend to other designated areas and protected public lands on the Rio Grande National Forest; eligible wild and scenic rivers, national scenic trails, special interest areas, scenic byways, and research natural areas.

Public opinion surveys have helped us define the benefits and values of wilderness. Overall, compared to previous decades, more people consider the various direct and indirect benefits of wilderness increasingly important. Recent data from the National Survey on Recreation and the Environment consistently rate protecting air quality, water quality, wildlife habitat, unique wild plant and animal species, and bequest to future generations as the top five most important benefits of wilderness (Cordell et al. 2005). Most Americans, whether urban or rural, also ascribe high importance to six additional benefits:

- the scenic beauty of wild landscapes,
- the knowledge that wilderness is being protected (existence value),
- the choice to visit wilderness at some future time (option value),
- the opportunity for wilderness recreation experiences,
- preserving nature for scientific study, and
- spiritual inspiration (Cordell et al. 2008).

It is a misunderstanding that wilderness creates economic costs for local communities. This idea is often embodied in the 'jobs vs. environment' argument suggesting that there is an inherent tradeoff between economic prosperity and strong environmental protection. In fact, wilderness areas protect the environment and have a positive effect on local economics because they benefit local businesses and their employees, create revenue through recreation dollars, increase property values, and provide invaluable ecosystem services to nearby cities (<http://www.wilderness.net/NWPS/values>).

Rural areas endowed with natural resource amenities, like wilderness, experience higher regional economic growth rates (Deller et al. 2001), and the more public lands a county has, or the closer it is to protected lands, the faster the economic growth (Rasker et al. 2004). Recent studies of western counties and states have shown that population, income, and employment growth increased as the percentage of wilderness increased, and the West's popular national parks, monuments, wilderness areas and other public lands offer its growing high-tech and services industries a competitive advantage (Holmes and Hecox 2004). Proximity to wilderness is therefore an important reason why, in another study, 45 percent of long-time residents and 60 percent of recent migrants live in or move to counties containing wilderness (Headwaters Economics 2012).

Businesses also choose to locate in areas near wilderness and other public lands, bringing with them employees and jobs. In a study of business location decisions, businesses ranked scenic beauty, desire for a rural setting, and outdoor recreation opportunities far above labor costs and tax incentives as key reasons for locating or relocating in areas rich in protected landscapes (Rudzitis and Johansen 1991). In another study, more people (7 percent more than previously surveyed) indicated that providing better income for the tourist industry was an important benefit of wilderness (Johnson and Rasker 1995).

Of the \$730 billion that the outdoor recreation economy generates, 40 percent is from retail gear sales and trips, including those led by outfitters and guides (Cordell et al. 2008). Outdoor recreation businesses, in particular, reap the economic benefits of wilderness and other protected public lands. A recent study found that the outdoor recreation economy--which includes revenues and expenditures related to activities like hiking, climbing, camping, paddling, bicycling, hunting, fishing, wildlife viewing and snow sports--supports 6.1 million jobs, generates \$80 billion in annual tax revenue, and results in \$646 million in annual spending, making it one of America's most important employment sectors (Outdoor Industry Foundation 2006).

Other research concludes that proximity to wilderness increases property values, and land prices decrease with distance from a wilderness boundary (Phillips 2004). For example, the per-acre price of residential land near Vermont's Green Mountain National Forest (which contained six wilderness areas at the time of the calculations) is almost 19 percent higher in townships containing wilderness, and land prices decrease by 0.33 percent with every kilometer (six tenths of a mile) farther from a wilderness boundary (The Wilderness Society 2004).

Wilderness areas also provide a variety of other off-site benefits including ecosystem services such as watershed protection, water filtering, carbon sequestration, nutrient cycling and fish/wildlife habitat. Wilderness plays a significant role and contribution to the conservation of species or biological diversity. In concept, there is no theoretical difference between species conservation (or species sustainability) and ecological conservation (or ecological sustainability), as species-based biological diversity are emergent properties of ecosystems, which in turn are comprised of populations of plant and animal species.

Our agency studies suggest that one out of every five American's gets their water from wilderness (Sedell 2000). One study estimates the monetary value of wilderness ecosystem services, including watershed protection and water filtering, to be \$2-\$3.4 billion annually (Loomis and Richardson 2001). Other off-site values, however, are much harder to quantify with accurate figures for their worth. Scientific, healthcare, and educational values of wilderness often lack formal markets useful for determining their value through current prices. Simply because breathtaking viewsheds or scientific knowledge, for example, are not priced or priced consistently does not mean they lack value, only that market indicators of value do not exist or are not reliable predictors of worth.

Research natural areas most likely provide more significant contributions to research than do wilderness. Not all research and scientific activities are appropriate in wilderness. Furthermore, our agency policy (see FSM 2300, Chapter 2320, Section 2324.42) regarding research in wilderness emphasizes the preservation of wilderness character over scientific study. Research methods in wilderness are also restricted in that the use of motorized equipment or mechanical transport is generally not acceptable for conducting research in wilderness unless the research is necessary to meet the minimum land requirements for administration of the area as wilderness and cannot be done another way (Section 4(c) of the Wilderness Act). Research natural areas in turn provide significant opportunities to conduct research by various methods. By operating as a network of ecological research sites representing a wide range of forest types, research natural areas allow scientists the opportunity to conduct various types of research regarding management techniques and ecological processes that contribute to or influence ecological sustainability at landscape to regional scales.

Conclusion

Designated area protected landscapes carry important and varied emotional, cultural, and symbolic meanings. The very idea of “protected designated area” conjures intense philosophical and emotional debate especially in regard to wilderness. While some argue the current national wilderness preservation system land base is sufficient and any additions would detract from other competing uses, others argue wilderness quality lands are disappearing to urban development and adding potential wilderness now represents the only permanent option for preserving wilderness before it disappears. Likewise, many people have similar debates regarding wild and scenic river designation. As mentioned this assessment does not include an inventory and evaluation of individual land areas for potential designations. Before our responsible official invites comments on the proposed plan, we will be required to inventory and evaluate potential wilderness (see FSH 1909.12, Chapter 70) and wild and scenic rivers (see FSH 1909.12, Chapter 80).

The first step in evaluating potential wilderness is identifying and inventorying all areas within National Forest System lands that satisfy the definition of wilderness found in section 2(c) of the 1964 Wilderness Act. Areas of potential wilderness identified through this process are called potential wilderness areas. This inventory of potential wilderness is not a land designation, nor does it imply any particular level of management direction or protection in association with the evaluation of these potential wilderness areas. It is completed with the express purpose of identifying all lands that meet the criteria for being evaluated for wilderness suitability and possible recommendation to Congress for wilderness study or designation.

Potential wilderness areas are then evaluated as potential additions to the national wilderness preservation system to determine the mix of land and resource uses that best meet public needs. An area recommended as suitable for wilderness must meet the tests of capability, availability, and need. In addition to the inherent wilderness quality it possesses, an area must provide opportunities and experiences that are dependent upon or enhanced by a wilderness environment. Our ability to manage an area as wilderness is also considered. Information from the wilderness evaluation is then used to develop and evaluate wilderness and non-wilderness options.

Our land management planning process also includes a comprehensive evaluation of the potential for rivers in a plan area to be eligible for inclusion in the National System (36 CFR 219.7(c)(2)(vi)). We will conduct an inventory of eligible river segments and document the process in an appendix of the environmental impact statement (EIS) for plan revision. Sources of information for identifying the significance of river-related values include the Nationwide Rivers Inventory; State river assessments; Tribal governments, other Federal, State, or local agencies; and the public. Collaborative involvement with the public is encouraged throughout the evaluation process (see FSH 1909.12 Chapter 80).

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