

# Jemez National Recreation Area Management Plan

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# I. Introduction

## Purpose

This Management Plan for the Jemez National Recreation Area (JNRA) establishes management direction for the JNRA in accordance with the 1993 JNRA Act (Public Law 103-104 107 Stat. 1025). It was developed to “conserve, protect, and restore the recreational, ecological, cultural, religious, and wildlife resource values for which the JNRA was designated”, as required by the JNRA Act. The JNRA Management Plan and Forest Plan amendment provide the programmatic goals, standards and guidelines (management direction) for administering the JNRA.

In addition to programmatic-level management direction, this Management Plan includes an associated Implementation Plan, outlining the project-level activities anticipated to be planned and implemented in the JNRA. Some of the actions listed in the Implementation Plan are subject to additional environmental analysis and public involvement in accordance with National Environmental Policy Act (NEPA) regulations and the Forest Service NEPA Handbook, prior to authorizing their implementation. A Monitoring Plan is also included in this Management Plan. Furthermore, the Implementation and Monitoring Plans are both flexible plans, subject to changes in budgets, staffing, and agency policies or priorities.

## JNRA Location and Description

The JNRA comprises 57,650 acres, which includes approximately 9,350 acres of private lands that are not subject to direction in this Management Plan. The National Forest lands within the JNRA are managed by the Jemez Ranger District of the Santa Fe National Forest.

The JNRA is located in north-central New Mexico, within the Jemez Mountains of Sandoval County. State Highways 4 and 126 are access roads into the area, and form a somewhat circular transportation corridor through the doughnut-shaped JNRA. State Highway 4 is a State Scenic and Historic Byway and proposed Federal Scenic Byway. The western boundary of the JNRA follows the Rio Guadalupe corridor, the southeastern portion consists of the Jemez River corridor and San Diego Canyon, and the northeastern portion follows the southern edge of the Valles Caldera National Preserve (Preserve) (See the Vicinity Map).

Elevations range from around 5,800 feet above sea level along the lower Jemez River near Cañon to over 10,100 feet at Los Griegos (just north of Cerro Pelado). The 11,254 foot high peak of Redondo lies to the north of the JNRA boundary on the Preserve. Precipitation averages about 20 inches a year, mostly from heavy summer rains and winter snowstorms. The two main river corridors that flow through the area, the Rio Guadalupe and the Jemez River, receive the most recreational use and the area as a whole receives a very high level of visitation relative to its size.

It is estimated that nearly 1.6 million people visit the JNRA each year. Recreational opportunities include an assortment of dispersed and developed activities. Camping, wildlife and scenery viewing, fishing, hunting, hiking, swimming, soaking in hot and warm springs, picnicking, rock climbing, horseback riding, cross-country skiing, and driving for pleasure are some of the more popular activities. Dramatic landscapes created by eons of gradual and cataclysmic geologic events provide breathtaking views. Sheer cliff faces, pock-marked tuff exposures, flat topped mesas, lush canyon bottoms, the Valle Grande and the domed peak of Redondo provide for a varied and vibrantly colored visual experience. The JNRA provides more than outstanding scenic features and recreation opportunities. From a natural resource standpoint, the JNRA contains habitat for many wildlife and plant species, including some listed as threatened, endangered, or sensitive.

From a social perspective, the landscapes and resources of the Jemez Mountains are a necessary part of some people's identity and existence. Ancestral homes of living pueblo cultures are present on lands within the JNRA. Traditional Native American and northern New Mexico communities rely on resources within the area. Being able to graze cattle, hunt for subsistence, collect medicinal plants, and cut timber to build homes and firewood to heat them are just a few of the activities important to long time inhabitants of the Jemez Mountain area. The key concerns about existing situations that led to the development of the management direction contained in this Plan are discussed in greater detail in the 1998 Assessment Report.

### **Provisions in the JNRA Act (Public Law 103-104)**

The JNRA Act defines the boundary of the JNRA and states no lands outside the boundaries of the JNRA may be added to the area without special authorization from Congress. The Act provides general direction for the administration of the JNRA, including the requirement that a management plan be developed to conserve, protect and restore the resource values for which it was designated. Additional management direction is provided in the Forest Service Manual (FSM) 2370.

The most relevant provisions in the JNRA Act are as follows:

- Particular emphasis is placed on preservation, stabilization, and protection of cultural resources in furtherance of the Archaeological Resource Protection Act of 1979, the National Historic Preservation Act, and the American Indian Religious Freedom Act (42 U.S.C. 1991).
- The Forest Service may temporarily close portions of the JNRA to general public use in order to protect traditional and customary uses in such portions by local tribes (PL103-104 Sec. 2d).
- Particular emphasis is placed on the conservation and protection of wildlife resources, including species listed as sensitive by the Forest Service; and compliance with applicable Federal and State laws relating to wildlife including the Endangered Species Act of 1973
- Timber harvesting for commercial purposes may be permitted as long as it is compatible with the purposes of the JNRA Act (PL 103-104 Sec.2g).
- Livestock grazing may be permitted in accordance to the regulations prescribed by the Secretary of Agriculture (PL 103-104 Sec.2h).
- Recreation facilities will be provided within the JNRA and a visitor center and interpretive facilities in or near the JNRA will be established (PL 103-104 Sec 2 j and k).
- A Transportation Plan will also be prepared that provides for the most efficient use of roads and trails. The transportation plan should provide for dispersed recreation while minimizing impact on significant archaeological and religious sites (PL 103-104 Sec 2 i).
- The Act further addresses land donations, and land acquisition (PL 103-104 Sec. 5).

### **Forest Plan**

The management direction contained in this Plan is taken directly from the Forest Service preferred alternative (Alternative B) as described in the Environmental Assessment (EA) for the JNRA Management Plan and Forest Plan Amendment. Once the public review of the EA is completed and a decision is rendered, this Management Plan will be finalized, based on the selected alternative.

Forest Service Manual direction (2371.21[1]) requires that each special area designated by law be assigned a separate management area designation in the Forest Plan. The JNRA will become Management Area X, which replaces the existing management areas that overlap the JNRA (areas A, C, E, G, L, M, N, P, Q, and R). For two specially designated areas within the JNRA, direction for Management Area X will be an addition to the existing management area direction.

The first exception is Monument Canyon Research Natural Area (RNA), Management area M. The 640 acre Monument Canyon Research Natural Area was established by order of R.M. Stewart, Southwestern Regional Forester in 1932 *"To preserve in a natural state a typical area of western*

*yellow pine forest as found in northern New Mexico".* Under Forest Plan direction for management area M, it is managed to provide opportunities for research and education, and to represent an undisturbed ponderosa pine forest ecosystem. The second exception is the congressionally-designated East Fork Jemez Wild and Scenic River (WSR), part of the proposed Management Area F for Wild and Scenic Rivers on the Santa Fe National Forest. East Fork Jemez WSR was established on June 6, 1990 (Public Law 101-306). It also contains a Botanical Special Interest Area established in the 1987 Forest Plan. The East Fork Management Plan and Forest Plan Amendment is going through a similar public review and agency decision making process at this time. These two management areas will not be replaced by the JNRA Management Area X, and management of these areas must also be in compliance with JNRA management area direction. If a conflict should arise in applying the dual sets of management direction, the most stringent standards and guidelines will apply.

This JNRA Management Plan includes a proposal to change some standards and guidelines for Monument Canyon RNA. Current standards and guidelines allow natural processes to occur but prohibit vegetative management activities. It states that there will be no harvest of timber or firewood, nor will this area be assigned any grazing capacity (USDA-FS, 1987b, page 150). Proposed management direction in this Plan allows for vegetation management in the Monument Canyon Research Natural area when it maintains the natural integrity of the ecosystem and is used for research, commensurate with the purposes for which the Research Natural Area was established.

## II. Management Area Direction

The following goals, standards and guidelines will guide management of the JNRA. Italicized statements, offset with a diamond shape, indicate standards and guidelines required by law under the 1993 JNRA Act.

### Soil, Water, and Riparian

- Following wildfires, assess the degree of damage and threats to resources (roads, soils, wildlife habitat, etc.) and property values. Take corrective action to stabilize or minimize adverse impacts or threats to human life, private property, future soil productivity, and other sensitive resources. Where appropriate, allow nature to gradually heal the land without management intervention such as seeding, contour felling, planting, and installing erosion control structures.
- Manage recreation and other uses to protect soil and water resources using methods such as closures and public education.

### Mining

- ❖ *Mining activities are prohibited, except where valid claims existed prior to establishment of the JNRA. No patents may be issued for any mineral location or claim in the JNRA. The agency may use mineral materials from the JNRA for public purposes such as maintenance and construction of roads, trails, and facilities as long as such use is compatible with the purposes of the JNRA. Reclamation requirements for valid mining activities shall include returning disturbed lands to a visual and hydrological condition as close as practical to their pre-mining condition (PL 103-104, Sec. 3 [a][b][c][e]).*

### Fire and Air Quality

- Work with and provide ample notice to other agencies, tribes, local communities, and visitors to ensure safety and minimize impacts to air quality from planned or unplanned fires.
- Where practical, design management treatments to imitate historical lightning-caused fire patterns.
- Provide public education about the important ecological role of fire, the benefits of prescribed fires, and the expected short duration reductions in air quality due to smoke from prescribed burns or controlled natural fires.
- Protect wildland urban interface areas at risk to wildfires (Thompson Ridge, Sierra Los Pinos, and Greater Jemez WUI areas are within the JNRA), and reduce the risk of catastrophic fires in the JNRA.
- Model air effects prior to and monitor air quality during prescribed fire activities to remain in conformity with State and Federal air quality regulations.
- Implement prescribed burns to meet the objectives of the National Interagency Fire Management Policy.

### Vegetation

- ❖ *Permit timber harvesting for commercial purposes, including (but not limited to) vigas, latillas, the gathering of fuelwood, and for purposes of public safety, recreation, wildlife, and administration, insofar as the harvesting is compatible with the purposes of the recreation area. Trees damaged or downed due to fire, disease, or insect infestation may be utilized, salvaged, or removed from the recreation area as appropriate (PL 103-104, Sec. 2 [g]).*
- Encourage vegetative diversity (age, species, structure, distribution) and resilience, consistent with ecological functions and processes such as restoring open park-like stands of mature ponderosa pine.
- Control the spread of invasive, non-native species, especially in riparian areas.

### Monument Canyon Research Natural Area

- Allow prescribed fire, removal of wood products, and other fuel reduction treatments in the fire-dependent ponderosa pine ecosystem of Monument Canyon Research Natural Area when it

maintains the natural integrity of that ecosystem and is used for research, commensurate with the purposes for which the Research Natural Area was established.

- Manage for semi-primitive, non-motorized use within the Monument Canyon Research Natural Area, but allow for use on existing access road (Forest Road 135). Prohibit cross-country vehicular travel except as necessary to provide access for research.

### **Wildlife**

- In designing facilities along streams, provide undisturbed areas that allow wildlife to access water sources (or provide alternative water sources) and other important habitat areas (e.g. riparian).
- Minimize the potential for conflicts between black bears and recreation users by:
  - Distributing educational information on bears to recreation users,
  - Working with the Department of Game and Fish to control individual problem bears,
  - Using bear resistant garbage containers at recreation sites, and
  - Modifying garbage collection schedule.
- Manage recreation facilities located in threatened, endangered and sensitive species habitat and riparian areas with particular emphasis placed on the conservation and protection of wildlife resources.
- In planning and designing management activities consider key elements of habitat management: composition, function, condition, type, and habitat fragmentation.

### **Livestock Grazing**

- ❖ *Permit grazing within the recreation area in accordance with regulations prescribed by the Secretary. Riparian areas shall be managed in such a manner as to protect their important resource values (PL 103-104, Sec. 2 [h]).*

**Upland standards:** The protection of upland range resource values from unacceptable grazing effects will be determined through monitoring. Livestock grazing will be managed at a level corresponding to conservative intensity (FSM 2211.1 (R3)). Conservative grazing intensity for rangelands in New Mexico has been defined as utilization levels between 31 and 40 percent (Holechek and Galt, 2000)

**Riparian standards:** The protection of riparian resource values from unacceptable grazing effects will be determined through monitoring. Grazing levels will not exceed any of the following four indicators. These standards build on standards established in Idaho Watersheds Project; Committee for Idaho's High Desert v. Martha G. Hahn, State Director; Bureau of Land Management; Jenna Whitlock, Owyhee Area Manager No. 01-35033 (Owyhee) as affirmed by the United States Court of Appeals for the Ninth Circuit (9/24/2002). They are more conservative than those imposed by the court in Owyhee.

1. Key herbaceous riparian vegetation, will have a minimum stubble height of four inches on the streambank, along the greenline, after the growing season (Owyhee) and during spring runoff (Clary and Webster, 1989; Elmore and Kauffman, 1994; Clary, 1999; Clary and Leininger, 2000; Baker et. al., 2001);
  2. Key riparian browse vegetation will not be used at levels exceeding 50 percent of the current annual twig growth that is within reach of the animals (Owyhee; Mosley et.al., 1998);
  3. Key herbaceous riparian vegetation on riparian areas, other than the streambanks, will not be grazed more than 30 percent during the growing season or 60 percent during the dormant season (Owyhee; Clary and Webster, 1989, Mosley et.al., 1998); and
- Streambank instability attributable to grazing livestock will be less than ten percent on a stream segment (Owyhee).

### **Heritage Resources, Prehistoric, Historic, and Traditional Uses**

- ❖ *Ensure protection of religious and cultural sites and provide access to those sites by Indian peoples for traditional cultural and customary uses (PL 103-104, Sec. 2 [d]).*
- When marking or identifying archaeological sites to be protected during project implementation, consider options other than paint.
- Strive to maintain the character of the Civilian Conservation Corps (CCC) facilities through the use of similar materials and design elements.

### **Social**

- ❖ *Permit scientific investigations in the area if they are in the public interest and compatible with the purposes of the JNRA Act (PL 103-104, Sec. 2 [m]).*
- ❖ *Establish a visitor center and interpretive facilities in or near the recreation area for the purpose of providing for education relating to the interpretation of cultural and natural resources of the recreation area (PL 103-104, Sec. 2 [k]).*
- Do not use marketing or other methods to increase visitation to the area.
- Encourage volunteer programs and partnerships with other agencies, tribes, local communities, and user groups in planning, implementing, and monitoring activities.
- Provide opportunities for tribes, local rural communities, and user groups to present information on their culture and traditions to visitors.
- Maintain the option of charging user fees to help offset the costs of managing the JNRA resources.
- Work with local cooperative emergency services to increase or improve emergency services so that local residents are assured of prompt emergency care, especially during peak visitor use periods.
- Provide facilities, services, and opportunities that reflect the interests and values of people living in and around the JNRA, in addition to considering the desires of non-resident visitors.
- Work with the State Highway Department and local communities to minimize the impacts from the increasing traffic volumes through the area.

### **Recreation**

- ❖ *Permit hunting and fishing on lands and waters within the recreation area in accordance with applicable Federal and State laws (PL 103-104, Sec. 2 [f]).*
- ❖ *Provide recreational facilities within the recreation area. Such facilities shall be constructed so as to minimize impacts on the scenic beauty, the natural character, and the archaeological and religious sites of the recreation area (PL 103-104, Sec. 2 [j]).*
- In providing for recreational facilities, place particular emphasis on the preservation, stabilization, and protection of cultural resources and the conservation and protection of wildlife resources. Manage the rivers in the JNRA (Rio Cebolla, San Antonio Creek, East Fork Jemez, Jemez River, and Rio Guadalupe) as key fishing opportunities.
- Manage for the level of recreational development consistent with the Recreation Opportunity Spectrum (ROS) classifications for this area.
- When rehabilitating existing recreation facilities, consider the dispersed area that the recreation facility serves and consider resource capacities associated with the dispersal area.
- Manage the four landscape subunits (Lake Fork, Guadalupe, East Fork and Lower Jemez) to emphasize each unit's unique recreation opportunities and character and to reduce negative impacts of overuse.
  - Manage the Lake Fork and Guadalupe for dispersed recreation.
  - Manage the East Fork for both developed and dispersed recreation as further defined in the management direction for the East Fork WSR.
  - Manage the Lower Jemez for developed recreation.
- Eliminate illegal dumpsites and other garbage and debris (household garbage, appliances, and old abandoned automobiles).
- Manage the areas surrounding La Cueva and between La Cueva and Cañon for day uses, with overnight use limited to designated campgrounds.

- In managing the hot and warm springs areas:
  - Control vehicle and pedestrian traffic and public use as needed to protect visitor safety and resource values.
  - Restore and maintain or enhance natural resource conditions.
  - Inform the public about health and safety risks, and about the possibility of encountering nude bathers.
  - Prohibit overnight use at Spence Springs.
  - Maintain current use at McCauley Springs by not developing additional trailheads that would increase or encourage additional access to McCauley.
- Designate Soda Dam as a Geologic Special Interest Area and interpret and protect its unique geologic features.
- Manage Trail 137 for Semi-Primitive, Non-Motorized recreation opportunity, and provide maintenance and signing appropriate to that setting and use.
- Provide a system of designated trails for motorized and/or non-motorized use.
- The following describes the Trail Management Plan for the JNRA as required in the JNRA Act Section 2 (i).
  - Maintain some trails for multiple use and others for distinct uses.
  - Minimize conflicts between trail users.
  - Continue to work with volunteer motorized and non-motorized organizations to maintain desired non-system trails and designate these trails for incorporation into the Forest Service Trail system.
  - Close and obliterate non-system trails that are causing unacceptable resource damage.
  - *Lake Fork Subunit:*
    - Designate areas for motorized and non-motorized use within corridor.
    - Provide trailhead parking for non-motorized trail uses along San Antonio Creek.
    - Provide parking and pedestrian trails along Rio Cebolla for fishing access.
    - Convert some existing two-track roads to non-motorized trails along San Antonio Creek.
    - Continue to work with the State Highway Department to provide additional parking within the Highway 126 right-of-way near the intersection with FR 376 (north and south) for both snowmobilers and cross-country skiers.
  - *Guadalupe Subunit:*
    - Designate areas for motorized and non-motorized use extending from FR 376 and other forest roads.
    - Provide separate trails or in different areas for motorized and non-motorized use.
    - Designate dispersed recreation sites and small parking areas along FR 376 to access the river.
    - Provide pedestrian trails to connect dispersed sites and parking areas to the river.
  - *Lower Jemez Subunit:*
    - Permit only pedestrian use along trails in this subunit.
    - Design new trails to be consistent with existing trails within the Lower Jemez Recreation Complex.
    - Limit new trail development within the subunit to hardened, designated access to and along the river.
  - *East Fork Subunit:*
    - Permit only non-motorized use along Trail 137; motorized and non-motorized use permitted in other areas of the subunit.
    - Add some of the non-system trails, particularly those south of State Highway 4, to the Forest Trail Inventory for both motorized and non-motorized uses.
    - Link Trail 137 to other non-system trails where appropriate.
    - Provide additional trailhead parking for both non-motorized and motorized use.
    - Continue working with New Mexico Ski Club to identify additional cross-country skiing opportunities.



## Scenery

- Manage for a Scenic Integrity Objective of "high" throughout the JNRA.
- When planning vegetation management projects, emphasize scenery along with the other resources emphasized in the JNRA Act.

## Roads

- Work in partnership with user groups and/or others to cooperatively designate future trail and road systems.
- Provide road access for traditional uses, dispersed recreation, permittee and administrative uses.
- Manage roads within the JNRA to conserve, protect, and restore the recreational, ecological, cultural, religious, and wildlife resource values, with particular emphasis on cultural and wildlife resources.
- Close approximately 14 miles of currently open roads, and maintain existing road closures (9 miles), allowing administrative or permittee use only on these roads and decommission approximately 84 miles of roads, removing them from the designated Forest road system (in addition to the 5 miles previously decommissioned in this area) within five years after approval of this management plan.
- The Transportation Plan should reflect a total of approximately 23 miles of closed roads (for administrative or permittee use only), at least 89 miles of decommissioned roads (off Forest road system inventory), and approximately 128 miles of open roads (including highways).
- Prohibit or restrict motorized vehicle use in accordance with the Travel Area Map where:
  - Open (16,905 acres)**- Allows motorized travel on or off of designated Forest roads and trails.
  - A (15,455 acres)**- Restricts motorized travel to designated Forest system roads and trails, as well as any highways, except to pull-off the road within 300 feet of the roadway.
  - A1 (10,145 acres)** - Restricts motorized travel to designated Forest system roads and trails, and vehicles may not drive beyond the roadway.
  - D (5,795 acres)**- Prohibits all motorized travel. These areas may contain a few roads or trails for administrative use but are not open to public use. These are typically areas where natural resources may be seriously damaged or threatened by continued motorized use, or where a non-motorized recreation opportunity is desired.

## Lands

- ❖ *Private land in the area may be acquired by donation, purchase or exchange but only with the consent of the owner, unless the lands will be put to a new use that is incompatible with the protection of the natural and cultural resources of the area. State land in the area may be acquired only by donation or exchange (PL 103-104, Sec. 5).*
- Private land is not subject to the management direction outlined in this plan.

## Utilities

- ❖ *The JNRA Act states a utility corridor for high power electronic transmission lines may only be permitted if the agency determines that:*
  - a. There is not a feasible alternative location.*
  - b. Damage to the recreational and scenic quality and to the archaeological and religious sites of the area will not be significant.*
  - c. It is in the public interest that such corridor be located in the JNRA.*
  - d. A plan to minimize harm to the resources of the area has been developed (PL 103-104, Sec. 2 [I]).*

### III. Transportation Plan

Current road inventories indicate there are approximately 240 miles of road within the JNRA boundary. The following table displays the existing miles of road.

Existing Road Inventory (miles)

Open	Closed	Decommissioned	Total
226	9	5	240

As the JNRA encompasses about 90 square miles, the average road density is about 2.5 miles of road per square mile. Many roads were constructed for past timbering activities that began in the early 1900's when the area was under private ownership. The following section provides information of the types and condition of roads in the JNRA.

#### State Highways and Forest System Roads

Three paved State Highways are within the JNRA boundary, State Highways 4, 485, and 126. Visitors and local residents use these highways to access the Jemez Mountain area. While driving for pleasure and viewing the scenery is a popular activity along the highways, these roads also serve as main travel corridors by industry for transport of materials and products.

**New Mexico State Highway 4** is open year-round to all types of vehicles. The Highway was designated by the State of New Mexico as a *Scenic and Historic Byway* often referred to as the *Jemez Mountain Trail*. It is currently proposed as a *National Scenic Byway*. It provides access to many camp and picnic grounds in Santa Fe National Forest. It begins at the junction of Federal Highway 550 (old State Highway 44) in San Ysidro, NM, and runs northeast along the Jemez River passing through San Diego Canyon and the villages of Jemez Pueblo, Cañon, and Jemez Springs before intersecting with State Highway 126 in La Cueva. Here, State Highway 4 turns east, travels through forested landscapes, overlooks the expansive meadows of the recently designated Valles Caldera National Preserve, and passes near the headwaters of the East Fork WSR. The Highway then exits the JNRA and continues eastward toward Bandelier National Monument.

**New Mexico State Highway 126** is open spring through fall. A portion of this road is designated as part of the *Scenic and Historic Byway* mentioned under the discussion for State Highway 4. The first ten miles from Cuba to Senorita Divide and the last 13 miles from Fenton Lake to La Cueva are paved. The remaining interior 21 miles are gravel and best suited for high-clearance vehicle travel. The Highway is generally closed due to heavy snow accumulation between Telephone Canyon and Seven Springs Fish Hatchery during winter months. The Highway climbs 1,700 vertical feet in the first ten miles from Cuba to Senorita Divide. Here, the road becomes gravel and continues in a southeast direction passing through meadows of the Rio Las Vacas, Telephone and Calaveras Canyons, Seven Springs Fish Hatchery, and Fenton Lake State Park. Three miles east of Fenton Lake, pavement begins and continues for the final 13 miles to La Cueva. At La Cueva, State Highway 126 intersects with State Highway 4 at San Antonio Creek.

Directly related to State Highway 126, the Federal Highway Administration issued a Final Environmental Impact Statement in November 2001, with a preferred alternative to reconstruct and pave the highway. The Federal Highway Administration is expected to issue a Record of Decision in 2002.

**New Mexico State Highway 485** begins at the intersection of State Highway 4 and winds through the community of Cañon along a narrow paved two lane road; following an old railroad logging grade as it travels up a canyon carved by the Rio Guadalupe. As it passes through the

Gilman tunnels, the road narrows to one lane. At the tunnels, there are small pullouts where travelers can stop, stretch, and view the majestic canyon walls of the Guadalupe Box. A short distance north of the tunnels, the pavement ends and the road designation changes to Forest Road 376.

The remaining roads within the JNRA are gravel or dirt surface roads. Forest visitors, recreation users, livestock operators, private landowners, and Forest personnel use these roads. The roads range in maintenance levels from Level 1 to 3. Refer to FSH 7709.58, 10, for a detailed description of maintenance levels. The following provides a brief summary of maintenance levels.

**Level 1** - essentially closed, however, they may be opened for selected activities. Travel along these roads requires a high clearance vehicle.

**Level 2** - open but may be closed seasonally. These roads are generally not surfaced and high clearance vehicles are usually required.

**Level 3** - open and maintained for passenger vehicles. Travel along these roads is typically at low speeds. They are generally single lane with turnouts. Some portions may be surfaced with aggregate or native materials.

Level 1 and Level 2 roads are numerous and many extend for short distances and subsequently dead end. These roads are accessed primarily by the two key Level 3 roads described below.

**Forest Road 376** is usually open between May and December. It begins at the end of the pavement on State Highway 485 near the Gilman tunnels and passes through 18 miles of juniper, piñon pine, and ponderosa pine forests before intersecting with State Highway 126 near Fenton Hill. Forest Road 376 continues north for another five miles through quaking aspen, fir and spruce forests before coming to a dead-end at the parking area for San Antonio hot springs. The first 7-½ miles is graveled and suitable for all vehicles. The remaining 15-½ miles is best traveled in a high-clearance vehicle.

**Forest Road 10** is usually open between May and December. Portions of the road are graveled, but in general, the road is best suited for high-clearance vehicles. The road begins at the end of the pavement on State Highway 290 near the community of Ponderosa. The first three miles of road extend northward from the highway, skirting Paliza Campground along Vallecitos Creek and the scenic cliffs of San Juan Mesa. Piñon pine and juniper vegetation gives way to ponderosa pine for the next seven miles. At the ten-mile mark, the road intersects with the Cerro Pelado Lookout Road (Forest Road 270). Forest Road 10 continues through dense pine and fir forests and the meadows of the Vallecitos de los Indios area for another five miles before reaching State Highway 4.

It is clear when viewing the transportation map that portions of the JNRA have a high density of roads. Many of these roads are abandoned logging roads that are not maintained or signed, yet some forest visitors still travel along them. Even with the high density of roads, off road use continues to occur resulting in new roads being created or decommissioned roads being reopened. Because these roads are not system roads, they are not signed, maintained, or patrolled. Erosion, rutting, soil loss, and riparian damage often occur along these non-system roads. Additionally, travelers are not always aware of the rough conditions, and at times take low clearance vehicles into rough areas – creating additional resource damage when they get stuck.

There are three designations used to describe the status of roads within the JNRA:

**Open** - these roads are considered part of the JNRA transportation system. They range in maintenance levels and can be opened year-round or seasonally.

**Closed** - these roads are currently closed with gates or by mechanical means. They are, however, still considered part of the JNRA transportation system. They may be used for

administrative use and they could potentially be opened for future public use if deemed necessary.

**Decommissioned** - These roads no longer exist. They may have naturally revegetated making them no longer recognizable or they may have been mechanically obliterated, making them impassable. They have been removed from the JNRA transportation system. They are not used for administrative uses.

## Management Direction

The Santa Fe National Forest Plan provides management direction related to transportation. The following statements represent some of the management direction already included in the Forest Plan. Forest Plan page numbers are provided in parentheses:

- Maintain roads to the level needed, based on safety, resource conditions and values, land capability, and intended use. Regulate road uses, including the size, speed, and weight of trucks on forest roads, imposing user restrictions where appropriate and necessary (pages 21, 90, and 91).
- Provide a transportation plan and system that addresses access needs and eliminates unnecessary roads (pages 21 and 91; the JNRA Act).
- Alert travelers to road conditions on narrow, winding, low maintenance or one-lane roads (page 91).

In addition to the above management direction, the following management direction was developed specific to the JNRA:

- Work in partnership with user groups and/or others to cooperatively designate future trail and road systems.
- Provide road access for traditional uses, dispersed recreation, permittee and administrative uses.
- Manage roads within the JNRA to conserve, protect, and restore the recreational, ecological, cultural, religious, and wildlife resource values, with particular emphasis on cultural and wildlife resources.
- Close approximately 14 miles of currently open roads, and maintain existing road closures (9 miles), allowing administrative or permittee use only on these roads and decommission approximately 84 miles of roads, removing them from the designated Forest road system (in addition to the 5 miles previously decommissioned in this area) within five years after approval of this management plan.
- The Transportation Plan should reflect a total of approximately 23 miles of closed roads (for administrative or permittee use only), at least 89 miles of decommissioned roads (off Forest road system inventory), and approximately 128 miles of open roads (including highways).
- Prohibit or restrict motorized vehicle use in accordance with the Travel Area Map where:
  - Open (16,905 acres)**- Allows motorized travel on or off of designated Forest roads and trails.
  - A (15,455 acres)**- Restricts motorized travel to designated Forest system roads and trails, as well as any highways, except to pull-off the road within 300 feet of the roadway.
  - A1 (10,145 acres)** - Restricts motorized travel to designated Forest system roads and trails, and vehicles may not drive beyond the roadway.
  - D (5,795 acres)**- Prohibits all motorized travel. These areas may contain a few roads or trails for administrative use but are not open to public use. These are typically areas where natural resources may be seriously damaged or threatened by continued motorized use, or where a non-motorized recreation opportunity is desired.

Proposed Road Inventory (miles)

Open	Closed	Decommissioned	Total
128	23	89	240

## Trails

Forest development trails in the JNRA are limited. Trail 137 and the ½ mile of combined Trail 137(a) & (b) are the most widely used trails on the Jemez Ranger District and the only designated trail system in the JNRA. The 137 trail system is designated as a non-motorized (i.e. horse, mountain bike, and foot traffic) trail with day hiking being the most popular use. At times, however, unauthorized motorized vehicle users utilize the trail.

While every effort is made to keep this trail system properly maintained, certain sections of the trail are currently experiencing erosion and are in need of some major reconstruction. Signing is needed in some areas along the trail, particularly where the main trail merges with an extensive network of undeveloped trails created by people accessing the river.

Cattle are excluded from the riparian area along most of the East Fork Jemez Wild and Scenic River; however, there are a few cattle trails down to the river along the western portion. They may access the narrow water gaps to drink at the river when upland water sources have been damaged. Trails 137(a) & (b), which lead from the main trail to the river bottom are in need of reconstruction due to cattle and recreation use which has resulted in soil erosion and vegetation loss.

Four trailheads are present within the JNRA; each accesses a different portion of Trail 137. No fees are required to use these areas. The eastern portion of the trail is accessed by Las Conchas trailhead, the middle section can be accessed by the East Fork and Jemez Falls trailheads, and the western portion of the trail is accessed at Battleship Picnic Area trailhead. Each trailhead is described as follows:

**Las Conchas** - parking for four vehicles is available at this trailhead. The trailhead serves Trail 137 along the "Wild Section" of the *East Fork of The Jemez Wild and Scenic River* and is the District's most widely used trail. Because of its popularity, the trailhead parking area fills up quickly and vehicles continue to line up along the highway right-of-way, presenting a safety hazard to both pedestrians and vehicles traveling past the trailhead. Heavy use of the trailhead contributes to soil compaction, erosion, stream sedimentation, vegetation loss, litter, and sanitary concerns. Other than parking, no additional facilities are present.

**Jemez Falls** - parking for 27 vehicles is available at this trailhead. Parking is shared with the Jemez Falls group picnic area. The trailhead serves Trail 137 along the "Scenic Section" of the *East Fork Jemez Wild & Scenic River*. One can access the Jemez Falls overlook from this trailhead, as well as McCauley Warm Spring. The trailhead parking area is paved and contains one double vault toilet and one centralized trash container. Potable water is available. Several undeveloped and undesirable trails lead from the parking area to the Jemez Falls Overlook and to different areas along the East Fork Jemez River.

**East Fork** - parking for 31 vehicles is available at this trailhead. The trailhead is located at the lower end of "Wild Section" of the *East Fork Jemez Wild & Scenic River* and serves that portion of the river along with the upper section of the "Scenic Section" of the *East Fork Jemez Wild & Scenic River*. The parking area has a hardened surface (chip seal) and contains a dual vault toilet and centralized trash container. The trash facility is not universally accessible, and while the toilet is universally accessible, the path to it is not. No potable water is available. Of the three trailheads described, this one receives the least amount of use.

**Battleship Picnic Area Trailhead** – This trailhead was newly constructed in 2000 in conjunction with reconstruction activities at the adjacent Battleship Rock picnic area. It officially opened for public use in 2001 and is a popular location for visitors. The trailhead provides parking for 9 cars, 2 RVs, and 1 bus. It is located at the far western portion of Trail 137. The parking area is directly accessed from Highway 4 and has a hardened surface and a toilet facility. Additional amenities are provided nearby at the Battleship rock picnic area.

## Current Forest Plan Standards and Guidelines

The Santa Fe National Forest Plan provides management direction related to trails. The following statements represent some of the management direction already included in the Forest Plan. Page numbers are provide if the reader wishes to refer back to the Santa Fe National Forest Plan:

- Minimize the area of impact of new and existing roads and trails on riparian zones and wet meadows. Locate construction equipment service areas outside the riparian areas (Page 90).
- Provide and maintain a variety of Forest trails, consistent with planned recreation opportunities. Include foot, horse, winter, and motorized trails, as well as opportunities for the handicapped (Page 18).

In addition to the above management direction, the following management direction was developed specific to the JNRA.

- Manage Trail 137 under the Semi-Primitive, Non-Motorized ROS classification, providing maintenance and signing appropriate to that setting and use.
- The following describes the trail management plan for the JNRA.
  - Maintain some trails for multiple use and others for distinct uses.
  - Strive to minimize conflicts between trail users.
  - Continue to work with volunteer motorized and non-motorized trail organizations to maintain the trails network and designate sections for incorporation into the district's system of trails.
  - *Lake Fork Subunit:*
    - Designate areas for motorized and non-motorized use within corridor.
    - Provide trailhead parking for non-motorized trail use along San Antonio Creek.
    - Provide parking and pedestrian trails along Rio Cebolla for fishing access.
    - Convert some existing two-track roads to non-motorized trails along San Antonio Creek.
    - Continue to work with the State Highway Department to provide additional parking within the Highway 126 right-of-way near the intersection with FR 376 (north and south) for both snowmobilers and cross-country skiers.
  - *Guadalupe Subunit:*
    - Designate areas for motorized and non-motorized use along FR 376 and other forest roads.
    - Provide separate trails or in different areas for motorized and non-motorized use.
    - Designate dispersed recreation sites and small parking areas along FR 376 to access the river.
    - Provide pedestrian trails to connect dispersed sites and parking areas to the river.
  - *Lower Jemez Subunit:*
    - Permit only pedestrian use along trails in this subunit.
    - Design new trails to be consistent with existing trails within the Lower Jemez Recreation Complex.
    - Limit new trail development within the subunit to hardened, designated access to and along the river corridor.
  - *East Fork Subunit:*
    - Permit only non-motorized use along Trail 137; motorized and non-motorized use permitted in other areas of the subunit.
    - Add some of the non-system trails, particularly those south of State Highway 4, to the Forest Trail Inventory for both motorized and non-motorized use.
    - Link Trail 137 to other non-system trails where appropriate.
    - Provide additional trailhead parking for both non-motorized and motorized use.
    - Continue working with New Mexico Ski Club to identify additional cross-country skiing opportunities.

## IV. Monitoring Plan

Project-level monitoring can be done at various intensities, but will generally involve four steps. The first is to collect relevant baseline data to determine what the existing condition is before undertaking activities. The second step is to verify that projects were carried out as intended and planned. This second step is known as implementation monitoring. Once we know baseline conditions and have confirmed that projects took place as planned, we can then assess whether the results and effects were what we anticipated. This third step is effectiveness monitoring. Generally, effectiveness monitoring will be performed on a sampling basis, rather than for each and every activity.

If projects are not achieving anticipated results, the next step is to re-examine the assumptions and logic that went into planning, design, and implementation. This fourth step, called validation monitoring, allows us to identify whether there is a need for change in overall direction in planning, designing or carrying out activities. Validation monitoring may be applied at a broader scale to periodically reexamine the management direction contained in the JNRA Management Plan (and Forest Plan) to verify whether it is still relevant and appropriate.

The monitoring included in the following table is organized by the five values noted in the purpose and need of the JNRA Act: the recreational, ecological, cultural, religious, and wildlife resource values. The general intent of the monitoring is to collect baseline data as well as to evaluate whether the proposed management direction adequately serves to conserve, protect, and restore the values for which the JNRA was created. Monitoring results will also be used to determine the need for future site-specific project proposals.

The following table lists the location, type of measurement (units) typically used in monitoring, data source, intent, and frequency of monitoring that is estimated for use in the JNRA. The extent and intensity of monitoring actions was based upon past, current and anticipated future funding levels, along with staffing level and other District priorities. Adding more monitoring actions or increasing the extent, intensity or frequency of monitoring would likely not be feasible. The monitoring actions selected are those that address areas of highest concern, similar to items addressed in the implementation plan. Data collected through monitoring will be periodically evaluated by the District personnel so that course corrections can be made as needed.

# Monitoring Schedule

	Units	Data Source	Intent	Frequency
<b>Recreation</b>				
Spence and McCauley springs	Number of visitors Number of citations Cars in parking area	Field Inspections Law enforcement patrols Correspondence	Collect base line data for future use in NEPA analysis related to Spring use	Monthly during peak use (Memorial Day to Labor Day) and ongoing patrols
Off Road Vehicle Use	Number of citations	Law enforcement and Level II patrols	Ensure compliance with Travel Area designations	Ongoing patrols
Dispersed Use	Number of visitors Cars parking off road Amount of trash (bags) Number and location of campfire rings	Field Inspections Visitor contacts	Collect baseline data for future use on Respect the Rio project along the Guadalupe and Lake Fork Corridor	Weekly during peak use (Memorial Day to Labor Day)
Developed Facilities	Campgrounds, fishing access areas, and picnic areas	Field inspections Campground hosts	Assure that sites are not hazardous to public health and safety	Weekly during peak use (Memorial Day to Labor Day)
<b>Ecological</b>				
Riparian	Amount per acre invasive plants (salt cedar, Russian olive, etc)	GIS layers Field inspections Range Reports	Assure improvement is continuing – effectiveness of ongoing riparian enhancement projects in Lower Jemez and Rio Guadalupe. Control the spread of invasive, non-native species into other riparian areas	Annually
	Sampling points along river corridors	Field Sampling	Measure riparian health, species composition and diversity, age class, plant vigor, and percent cover	Project specific basis
Soil and Water Quality	Selected water quality parameters	NMED in cooperation with Forest Service State 305 b report	Monitor water quality of streams	NMED monitors every 5-7 years



	<b>Units</b>	<b>Data Source</b>	<b>Intent</b>	<b>Frequency</b>
<b>Cultural</b>				
Archaeological sites	Sites	Field Inspection	Assure protection of National Register listed or eligible sites	Annually for listed sites, project specific basis for eligible sites
Grazing	Utilization	Field inspection	Ensure do not exceed established use level	Annually – end of grazing period
	Stubble Height	Field inspection	Ensure sufficient residual forage to support bank stability	Annually – end growing season
	Range Condition Readiness	Field inspection	Ensure plants are not grazed in critical growing periods.	Annually – beginning of grazing period
	Range Facilities	Field inspection INFRA	Proper functioning	Every two years
	Range Condition and Trend	Range analysis PU studies Utilization records	Grazing capacity and trend – compare actual and planned outputs	Every five years
	Permittee Compliance	Field inspection	Monitor compliance with annual operating instructions	Monthly
<b>Religious</b>				
Traditional use – Pueblo	Archaeology sites and landscapes	Archaeological Surveys, Ethnographic Data	Ensure protection of religious and cultural sites  Provide access to sites for traditional cultural and customary uses	On-going & project specific  As requested
<b>Wildlife</b>				
Management Indicator Species	Acres	Breeding bird surveys State Game and Fish Field Inspections USDA FS Wildlife, fish and rare plant management system (WFRP)	Assure MIS habitat maintenance	Annually

	<b>Units</b>	<b>Data Source</b>	<b>Intent</b>	<b>Frequency</b>
Fish Habitat– Rio Grande Cutthroat trout	Stream length – mouth to headwaters	Field inspections Stream habitat inventory INRIS	Collect data on habitat to determine current condition and trend for future management of the area	Every five to ten years

## V. Implementation Plan

The JNRA Assessment Report and Environmental Assessment identify problems that detract from conserving, protecting, and restoring the recreational, ecological, cultural, religious, and wildlife resource values of the JNRA. Those problems are addressed by strengthening the management direction for the JNRA, as described in this Management Plan. The Implementation Plan identifies actions that meet the management direction and address specific issues, concerns or opportunities in the JNRA.

Actions identified in this Implementation plan are actions considered technically, physically, and economically feasible to implement. They are considered possible actions rather than authorized actions, since many require site-specific NEPA analysis prior to approval for implementation. Other actions, such as providing public information, may be implemented immediately. Some of the actions are already approved and are currently being implemented. Implementation is subject to changes in budgets, staffing and national, regional, or local priorities. Therefore, this document identifies actions that are the most likely to be proposed within the JNRA, along with a prioritized schedule for implementing those actions.

In the absence of a final JNRA Management Plan, the District has moved forward under existing Forest Plan direction with planning and implementation of projects within the JNRA, in conformance with the resource values emphasized in the Act. These projects are included in the Implementation Plan to illustrate work that has already been accomplished over the past few years related to the issues identified during formal JNRA scoping process that began in 1997. In several cases, particularly related to recreation facilities, a number of original concerns have already been addressed.

The Implementation Plan incorporates the requirements identified in FSM 2371.22 and includes the location, problem to be addressed and solution in terms of possible actions that address the problem. The management direction sets the tone for continuous improvement. Items are prioritized based on direction set forth in the JRNA Act, along with public safety and available or expected funding. The target date of completion was assigned with careful consideration of the time needed to complete project level planning and analysis and the estimate of when funding will be available.

The Implementation Plan does not include every conceivable action or method that could be used to implement a specific standard or guideline. Additional actions or alternative methods may be identified in the future. Furthermore, environmental conditions in the JNRA may change due to wildfire, floods, or other events. If conditions change, new actions may need to be developed to protect and enhance the JNRA values.

# Implementation Plan

Location	Problem	Solution <i>Proposed Management Direction</i> or <i>Specific Action</i>	Target date to begin NEPA	
Soil Water and Riparian				
Rio Guadalupe Corridor	Human use of riparian areas can conflict with the need for wildlife to access water sources and high quality forage  Recreation overuse has resulted in soil loss, compaction, vegetation loss, and water quality impairments	<i>Manage recreation and other uses to protect soil and water resources using methods such as road closures and education</i>	<ul style="list-style-type: none"> <li>• Obliterate non-system user created roads in riparian areas</li> <li>• Designate where people can park and drive</li> <li>• Develop educational brochures on riparian areas</li> <li>• Install information kiosks</li> </ul>	Ongoing through 2010
Throughout	High intensity fires have the potential to cause undesirable soil loss, riparian damage, and water pollution	<i>Following wildfires, assess the degree of damage and threats to resources and property values. Take corrective action as needed to stabilize or minimize adverse impacts or threats to human life, private property, future soil productivity, and other sensitive resources. Where appropriate, allow nature to gradually heal the land without management intervention such as seeding, contour felling, planting, and installing erosion control structures</i>	Address soil loss and damage through Burned Area Emergency Rehabilitations (BAER) analysis	In the event of a wildfire
River corridors	Major drainages within the JNRA currently do not support their designated uses and do not meet state water quality standards		Incorporate Best Management Practices (BMPs) in project planning and implementation.	Ongoing
Fire and Air Quality				
Thompson Ridge, Jemez Springs, Sierra Los Pinos, La Cueva, Seven Springs	Potential for catastrophic wildfires has increased over the past few decades – Particularly human caused fires  More people moving to the Wildland Urban Interface – higher potential for human caused fire – concern with public safety and adequate notification in wildfire situations	<i>Work with and provide ample notice to other agencies, tribes, local communities, and visitors to ensure safety and minimize impacts to air quality from planned or unplanned fires</i>  <i>Protect wildland urban interface areas at risk to wildfires, and reduce the risk of catastrophic fires in the JNRA</i>	Construct fuel breaks around the following communities: <ul style="list-style-type: none"> <li>• Thompson Ridge</li> <li>• Above Jemez Springs (Virgin Mesa)</li> <li>• Sierra Los Pinos</li> <li>• La Cueva (Greater Jemez Project)</li> <li>• Seven Springs</li> </ul>	Ongoing...  Begun in 2000 Begun in 2001  Begun in 1997 Start 2003  Start 2002

<b>Location</b>	<b>Problem</b>	<b>Solution</b> <i>Proposed Management Direction</i> or <i>Specific Action</i>		<b>Target date to begin NEPA</b>
Throughout	Absence of natural, regularly occurring fire	<i>Where practical, design management treatments to imitate historical lightning-caused fire patterns</i>	Conduct thinning and/or burning to reduce fuels and create conditions that support low-intensity surface fires	Ongoing around portions of the JNRA, such as Sierra Los Pinos
Throughout	Prescribed burning will produce smoke which may affect air quality	<i>Model air effects prior to and monitor air quality during prescribed fire activities to remain in conformity with State and Federal air quality regulations</i>	Cease burning or change burn prescriptions as needed in response to smoke monitoring during prescribed burns	N/A
<b>Vegetation</b>				
Old San Diego Land Grant	Management activities during private ownership of the grant altered tree species, make-up, density, and distribution	<i>Encourage vegetative diversity (age, species, structure, distribution) and resilience, consistent with ecological functions and processes such as restoring open park-like stands of mature ponderosa pine</i>	Restore natural conditions in part through wildland urban interface projects – listed in previous section. These projects will incorporate and create or reestablish meadow openings, as well as leave snags and down logs where appropriate	1997-2010
Throughout	Absence of frequent, low-intensity fires has had an impact on the health of the forest and species makeup  Lack of snags and down logs for wildlife habitat  Grassy meadows being lost to tree invasion			
Monument Canyon Research Natural Area	Dense stands limit the natural growth of understory plants, suppress the development of large trees, increase the potential for insect and disease infestation, inhibit movement of large animals	<i>Allow prescribed fire, removal of wood products, and other fuel reduction treatments in the fire-dependent ponderosa pine ecosystem of Monument Canyon Research Natural Area when it maintains the natural integrity of that ecosystem and is used for research commensurate with the purposes for which the Research Natural Area was established</i>	Thin trees and create open stands of mature trees in Monument Canyon research Natural Area.	2003
Highway corridors	Dense trees detract from scenic opportunities	<i>When planning vegetation management projects, emphasize scenery along with other resources emphasized in the Act</i>	Use Scenery Mgt Handbook guidelines when planning vegetation management and other projects	On-going, when needed

Location	Problem	Solution <i>Proposed Management Direction</i> or <i>Specific Action</i>		Target date to begin NEPA
Lower Jemez and Rio Guadalupe	Streamside riparian zones are at risk to non-native, invasive plants	<i>Control the spread of invasive, non-native species, especially in riparian areas</i>	Cut, grub, and treat salt cedar, Russian olive, and other invasive species with herbicides	Begun in 1999 – implement through 2004
<b>Wildlife</b>				
Rio Guadalupe corridor	Road density and recreation use is high in some places, resulting in harassment of some species and interferes with their movement or ability to access more suitable habitat or water sources	<p><i>In designing facilities along streams, provide undisturbed areas that allow wildlife to access water sources (or provide alternative water sources) and other important habitat areas (e.g. riparian)</i></p> <p><i>Manage recreation facilities located in threatened, endangered and sensitive species habitat and riparian areas with particular emphasis placed on the conservation and protection of wildlife resources</i></p>	<p>Decommission non-system user created roads in riparian areas</p> <p>Designate where people can park, drive, and recreate</p> <p>Develop upland water sources for wildlife use</p>	Ongoing through 2010
Throughout	Reduction in fire occurrence in the Jemez Mountains have led to a gradual decline in habitat quality and biological diversity	<i>In planning and designing management activities consider key elements of habitat management: composition, function, condition, type, and habitat fragmentation</i>	Restore natural conditions in part through wildland urban interface projects – listed in previous section. These projects will incorporate and create or reestablish meadow openings, as well as leave snags and down logs where appropriate	1997-2010
Near campgrounds	Conflicts between bears and recreation users increase as more visitors come to the forest.	<p><i>Minimize the potential for conflicts between black bears and recreation users by:</i></p> <ul style="list-style-type: none"> <li>• <i>Distributing educational information on bears to recreation users,</i></li> <li>• <i>Working with the Department of Game and Fish to control individual problem bears,</i></li> <li>• <i>Using bear resistant garbage containers at recreation sites, and</i></li> <li>• <i>Modifying garbage collection schedule</i></li> </ul>	Distribute information about bears, work with Game and Fish to control individual problem bears, acquire and place bear resistant garbage cans at appropriate recreation sites and modify the garbage collection schedule	Ongoing

Location	Problem	Solution <i>Proposed Management Direction</i> or <i>Specific Action</i>		Target date to begin NEPA
East Fork San Antonio Rio Cebolla	Absence of native fish species		Reintroduce Rio Grande cutthroat trout and its native fish assemblage	2003
<b>Livestock Grazing</b>				
Rio Guadalupe Corridor and La Cueva	Forest users leave gates open and cattle drift into areas		Install ATV cattle guard in Schoolhouse canyon  Install two walk through stiles in fence above Fogon and Virgin Canyon  Extend drift fence in Lake Fork area to keep cattle from entering Fenton  Construct about 1 mile of boundary fence above La Cueva	2003-2005
Lake Fork	Hunters and campers use or camp within or around corrals at times when ranchers need the corrals to work their cattle		Construct a new corral outside of highly used recreation area along Rio Guadalupe and Lake Fork	2005
<b>Heritage Resources, Prehistoric, Historic, and Traditional Uses</b>				
Throughout	Archaeological sites are marked with paint – this draws attention to the sites and can result in vandalism as well as detract from the aesthetics of the area	<i>When marking or identifying archaeological sites to be protected during project implementation, consider options other than paint</i>	Use GPS and temporary site markings (biodegradable flagging tape)	As needed

Location	Problem	Solution <i>Proposed Management Direction</i>	or <i>Specific Action</i>	Target date to begin NEPA
Social				
Throughout	Local Cultures, customs, and traditions are not well understood by JNRA visitors	<p><i>Encourage volunteer programs and partnerships with other agencies, tribes, local communities and user groups in planning, implementing, and monitoring activities</i></p> <p><i>Provide opportunities for tribes, local rural communities, and user groups to present information on their culture and traditions to visitors</i></p> <p><i>Provide facilities, services, and opportunities that reflect the interests and values of people living in and around the JNRA, in addition to considering the desires on non-resident visitors.</i></p>		Ongoing
Throughout	The JNRA receives high visitor use – increased use will exceed what the local communities and land can support and traffic associated with high use is impacting local communities	<p><i>Do not use marketing or other methods to increase visitation to the area</i></p> <p><i>Work with the State Highway Department and local communities to minimize the impacts from the increasing traffic volumes through the area</i></p>		Ongoing
Throughout	Emergency services and law enforcement personnel available to respond in the JNRA are limited	<p><i>Maintain the option of charging user fees to help offset the costs of managing the JNRA resources</i></p> <p><i>Work with local cooperative emergency services to increase or improve emergency services so that local residents are assured of prompt emergency care, especially during peak visitor use periods</i></p>	Analyze fee demo	2004
Recreation				
Throughout	Dispersed activities impact residents of the Jemez Mountain communities (trespass, human caused fires, littering, vandalism, property damage)	<i>Manage the areas surrounding La Cueva and between La Cueva and Cañon for day uses, with overnight use limited to designated campgrounds</i>	Enact a closure order prohibiting overnight use in the areas surrounding La Cueva and Cañon	Complete



Location	Problem	Solution <i>Proposed Management Direction</i>	or <i>Specific Action</i>	Target date to begin NEPA
Rio Guadalupe and Lake Fork	Dispersed activities have the potential to impact the natural resources of an area. The high amount of dispersed use in these areas – off road parking in meadows, undeveloped roads accessing river, and camping in meadows results in soil erosion and compaction, degradation of water quality, and trampling of riparian vegetation,	<p><i>Manage these four landscape subunits to emphasize each subunit's unique recreation opportunities and character and to control negative impacts of overuse</i></p> <ul style="list-style-type: none"> <li>• <i>Manage the Lake Fork and Guadalupe for Dispersed recreation</i></li> </ul>	<p>Activities proposed in the Respect the Rio project:</p> <ul style="list-style-type: none"> <li>• Designate areas for parking</li> <li>• Construct restroom facilities</li> <li>• Designate appropriate dispersed recreation sites and close (rehabilitate and revegetate) sites near the river.</li> <li>• Provide pedestrian trails linking the dispersed sites to parking areas and the river.</li> </ul>	2002-2004
Spence and McCauley Springs	<p>Natural resources are being damaged and natural character of springs is altered</p> <p>Undeveloped trails to springs contributes to severe soil erosion and compaction</p> <p>Interpretation at springs is limited</p> <p>Nudity is common</p> <p>People camp illegally at Spence springs</p> <p>Undeveloped parking at Spence</p> <p>Vandalism and theft reported in parking area at Spence</p>	<p><i>In managing hot and warm springs areas:</i></p> <ul style="list-style-type: none"> <li>• <i>Control vehicle and pedestrian traffic and public use as needed to protect visitor safety and resource values</i></li> <li>• <i>Restore and maintain or enhance natural resource conditions</i></li> <li>• <i>Inform the public about health and safety risks, and about the possibility of encountering nude bathers</i></li> <li>• <i>Prohibit overnight use at Spence Springs</i></li> <li>• <i>Maintain current use at McCauley Springs, by not developing additional trailheads that would increase or encourage additional access to McCauley</i></li> </ul>	<p>Increase patrols at Spence Springs</p> <p>Enact a closure order on Spence springs for overnight use</p> <p>Work with State Highway Department on developing the parking lot at Spence Springs</p> <p>Designate and harden one trail to Spence Springs – close all remaining trails from the parking lot</p> <p>Post signs and / or distribute brochures on health and safety of Springs</p>	<p>2002</p> <p>Complete</p> <p>2004</p> <p>2003</p> <p>2003</p>

Location	Problem	Solution <i>Proposed Management Direction</i>	or <i>Specific Action</i>	Target date to begin NEPA
Trail 137	<p>Confusion over its designation – motorized or non-motorized</p> <p>Sections of the trail are eroded and in need of maintenance or reconstruction</p> <p>Signing is needed along portions of trail</p> <p>Recreation users and sometimes cattle use a maze of undeveloped trails leading to the river, contributing to soil erosion and vegetation loss</p>	<p><i>Manage Trail 137 under the Semi-Primitive, Non-Motorized ROS classification, providing maintenance and signing appropriate to that setting and use</i></p>	<p>Close non-system spur trails (rehabilitate and revegetate)</p> <p>Maintain and reconstruct eroded portions of Trail 137</p> <p>Post trail designation signs along the trail</p> <p>Develop upland water sources for cattle and wildlife</p>	2004
Throughout	<p>Forest Development trails are limited</p>	<p><i>Provide a system of Forest Development trails for motorized and / or non-motorized use</i></p>	<p>Inventory existing system and non-system trails</p> <p>Determine capacity for individual trail systems</p> <p>Designate appropriate motorized or non-motorized use for each trail</p> <p>Work with volunteer groups to designate and maintain trails</p>	2004
Soda Dam	<p>Congestion along the highway due to narrow corridor and no developed parking</p> <p>Pedestrian and driver safety is a concern due to congestion in the narrow corridor</p> <p>People climb on dam and contribute to erosion of the feature</p>	<p><i>Designate Soda Dam as a geologic special interest area and interpret and protect its unique features</i></p>	<p>Work with the State Highway department on safety issues related to cars parking along the roadway</p>	2004

Location	Problem	Solution <i>Proposed Management Direction</i>	or Specific Action	Target date to begin NEPA
Roads				
Primarily Rio Guadalupe and Lake Fork	<p>Portions of the JNRA are heavily roaded – the high road density interferes with wildlife movement.</p> <p>Erosion, rutting, soil and vegetation loss, and riparian damage often occur along the roads</p>	<p><i>Manage roads in the JNRA to conserve, protect, and restore the recreational, ecological, cultural, religious, and wildlife resource values with particular emphasis placed on cultural resources and wildlife resources</i></p> <p><i>Work in partnership with user groups and/or others to cooperatively designate future trail and road systems</i></p> <p><i>Provide road access for traditional uses, dispersed recreation, permittee and administrative uses</i></p> <p><i>Prohibit or restrict motorized use in accordance with the Travel Area Map</i></p>	See transportation plan	2004