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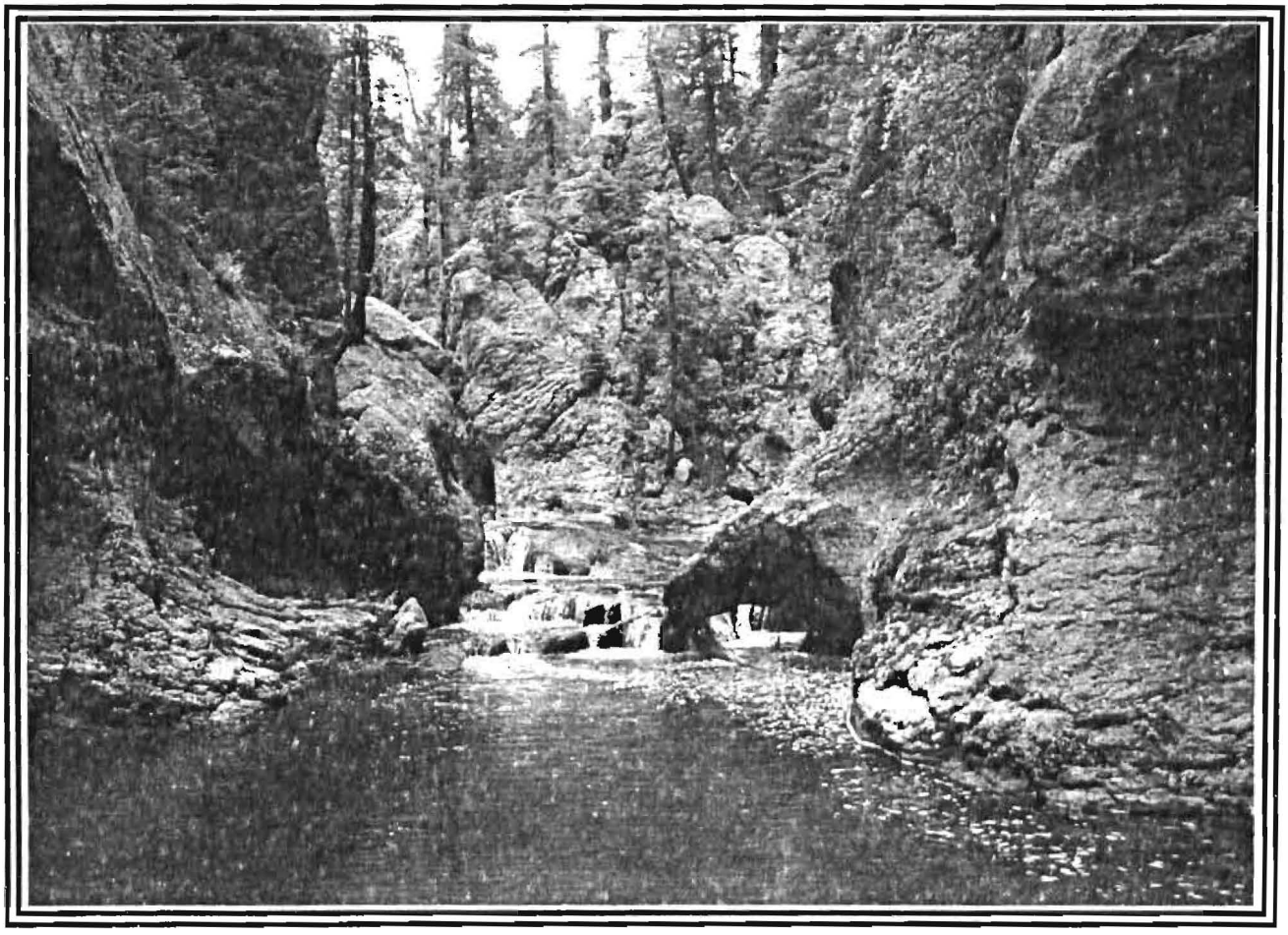
East Fork Jemez Wild and Scenic River Management Plan

Jemez Ranger District, Santa Fe National Forest
Sandoval County, New Mexico



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Introduction

Purpose

This comprehensive East Fork Jemez Wild and Scenic River Management Plan (WSR Management Plan) establishes programmatic management direction for the river corridor. It has been developed to implement the direction of the Wild and Scenic River Act (WSR Act) of 1968 as amended by Public Law 101-306 on June 6, 1990 to include 11 miles of the East Fork Jemez River (East Fork) in the national system.

The WSR Act established a system for preserving outstanding free-flowing rivers. As defined in Section 1(b) of the WSR Act: "...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" (PL 90-542, 1968).

The WSR Act requires the Forest Service to develop a comprehensive WSR Management Plan for the East Fork, which will protect and enhance the outstandingly remarkable values (WSR values).

The comprehensive WSR Management Plan guides all development, management, and restoration activities within the WSR corridor. It outlines a monitoring program and identifies possible actions. The standard and guidelines are a statement of the WSR Management Plan's management direction; however the projected activities and rates of implementation are estimates and depend on site-specific environmental analysis and the budgeting process.

WSR Location and Boundary

The WSR is located in Sandoval County in the Jemez Mountains of northern New Mexico, approximately five miles northeast of Jemez Springs in portions of:

Township 18 North, Range 3 East, sections 1, 2, 3, 4, 5, and 10
Township 18 North, Range 4 East, sections 3, 4, 5, 6, 8, and 9
Township 19 North, Range 3 East, sections 32

A final boundary was developed as a refinement of the interim boundary (approximately ¼ mile to either side of the river) with adjustments made to follow legal landlines and topographic features. The final boundary was forwarded to Congress February 15, 2000.

WSR Classifications, including Segments

The WSR is 11 miles long with a corridor averaging 320 acres per mile. The WSR segments were classified based on eligibility study approved in the 1987 Santa Fe National Forest Plan (Forest Plan) using criteria from the WSR Act: accessibility, developments along the shoreline, presence or absence of impoundments, and water quality. Results of the eligibility study are summarized in the Final Environmental Impact Statement for the Forest Plan, Appendix D, page 335 (USDA-FS, 1987a).

The *Wild* segment is defined as being free of impoundments and generally inaccessible except by trail, with watersheds and shorelines essentially primitive and waters unpolluted. The *Scenic* segment includes those river segments that are free of impoundments and accessible in places by road with shorelines or watersheds largely primitive and undeveloped. The *Recreation* segment is characterized by a river segment that is already accessible by road, that may have development along its shoreline, and may have undergone some impoundment or diversion in the past [PL 90-542 Sec. 2(b)].

Specific to the East Fork WSR, the Recreation segment is characterized by low stream gradients and easy access for recreational activities. In contrast, the Wild segment includes a tight box canyon with moderate stream gradient, big boulders and difficult access. The Scenic segment is characterized by a steeper gradient, including Jemez Falls itself, dropping into a narrow canyon with limited access. The stretch before joining San Antonio Creek has numerous boulders, pools and eddies creating some suitable fish habitat and attractive pools for swimming (see Map of WSR Segments in the EA).

The Baca Ranch was purchased by the federal government and renamed the Valles Caldera National Preserve (Preserve) (PL106-248, 2000). The WSR begins at the boundary of the Preserve and extends southward. The first two-mile segment of the WSR from the Preserve boundary to the second highway crossing of New Mexico State Highway 4 (Highway 4) is designated as the Recreation segment. The next four miles extending from the second water crossing to the third highway crossing is designated as the Wild segment. The last five miles, ending at the confluence with San Antonio Creek, is designated as the Scenic segment. The WSR corridor lies on lands managed by the Santa Fe National Forest and is within the congressionally designated Jemez National Recreation Area (PL 103-104, 1993). Two parcels of private land are located within the WSR corridor comprising a total of about 67 acres.

Relationship to Laws, Regulations, Directives and the Forest Plan

Provisions in the WSR Act, Public Law 101-306
Public Law 101-306 defines the 11-mile WSR corridor by segments, establishes a preliminary boundary, and provides general direction for the administration of the WSR. Public Law 90-542, Section 10a states that management plans will be developed that establish varying degrees of intensity for WSR protection and development based on special attributes of the area. It also states that the Secretary of Agriculture may utilize the general statutory authorities relating to the national forests in such manner, as he

deems appropriate to carry out the purposes of the WSR Act. It further allows for the Forest Service to enter into cooperative agreements with other agencies regarding administration of the WSR. It contains management policies (PL 90-542 Sec. 12) that encourage cooperative agreements between agencies as appropriate for protecting WSR values, and allows for easements to be granted through WSR corridors subject to National Forest System laws and regulations. The WSR Act further addresses land donations, leases, and land acquisition (PL 90-542 Sec. 6 and 14).

The WSR Act requires that a river must be free-flowing and possess one or more WSR values. For each river added to the national system by Congress, the administering agency is directed to manage it in a classification (Wild, Scenic or Recreation), establish a detailed boundary, and develop a comprehensive WSR Management Plan to protect and enhance the values for which it was added.

The WSR Act provision to keep the river in a free-flowing condition prohibits the Federal Energy Regulatory Commission from licensing the construction of hydroelectric facilities on designated rivers and other federal agencies from assisting in the construction of any water resources project that would have a direct and adverse effect on the river's free-flowing character, water quality or WSR values. The WSR Act also provides a standard that governs water resources projects proposed below, above or on any stream tributary to the designated river. The WSR is free of waterway modifications with the exception of some rip-rapping, log bridges for hikers, and three highway crossings that existed prior to establishment of the WSR. While the maintenance of existing facilities is permitted, new project proposals that could alter the free-flowing condition of the river would be evaluated by the Forest Service under the appropriate standard of Section 7 of the WSR Act.

USDA and USDI guidelines
The 1982 US Department of Interior and US Department of Agriculture guidelines for WSRs contains general management principles regarding development of the management plan, carrying capacity studies, public use and access, basic facilities, major facilities, motorized travel, agricultural and forestry practices, other resource management practices, water quality, land acquisition, mining, management of adjacent federal lands, hunting and fishing, rights-of-way, and land use controls (Federal Register, 1982).

Forest Service Manual
Forest Service Manual (FSM) 2354, July 1994, provides additional policy-level direction for administration of WSRs. The FSM 2354.3 describes an emphasis on scenic and recreational values, including primitive and rural Recreation Opportunity Spectrum (ROS) opportunities, user education and information, coordination with other agencies, use limits, etc., similar to the elements described in the 1982 US Department of Agriculture guidelines. It adds guidance for development of WSR management plans.

Forest Plan and the Proposed Forest Plan Amendment

The direction in this WSR Management Plan results from the analysis documented in the accompanying EA for the East Fork Wild and Scenic River Management Plan and Forest Plan Amendment. This proposed WSR Management Plan is based on adopting management direction contained in Alternative 3 of the EA.

A Decision Notice will be issued after public review of the EA and proposed Management Plan, documenting the Forest Supervisor's decision about whether or not to select Alternative 3 and this proposed Plan, or another alternative or combination of alternatives analyzed in the EA, which would be incorporated into a new Management Plan. The final approved WSR Management Plan will govern the management of the Forest Service activities in the East Fork WSR corridor.

Site-specific analysis will be done for actions subject to federal authority proposed with the WSR corridor. All proposed projects would be checked for consistency with the WSR Management Plan during the site-specific analysis or permitting process. If a proposed project is found to be inconsistent, one of three choices must be made: change the project, drop the project, or amend the WSR Management Plan (and Forest Plan).

Selected direction for this WSR will replace the existing management areas C, L, N, and R within the WSR corridor. In addition, the WSR lies entirely within Management Area X- Jemez NRA (proposed new management area). Therefore, management direction from Management Area X for the congressionally designated Jemez NRA will also apply to Management Area F (proposed new management area) for the WSR. The Jemez NRA legislation directs the Forest Service to conserve, protect, and restore the recreational, ecological, cultural, religious, and wildlife resource values for which it was designated, similar to legislation for the WSR.

The Forest Plan currently provides management direction for protecting and enhancing the designated WSR values in accordance with the WSR Act (USDA-FS, 1987b, as amended in 1989: pp. 19, 55). By following this management direction and implementing specific improvement projects, resource conditions have continuously improved over the past 15 years, and improvement projects continue to be implemented in this area. The remaining resource conditions of concern involve long-term problems with maintaining water quality and fish habitat at the highest State standard for "high quality cold water fisheries" use. These problems were primarily influenced by activities that occurred upstream, outside of the WSR corridor boundary and outside Forest Service jurisdiction, in addition to concentrated recreational uses in some areas adjacent to the river.

The Forest Plan contains goals and standards/guidelines addressing the Botanical Special Interest Area. The standards and guidelines direct the Forest to manage the bunchberry dogwood plant community as a Botanical Special Interest Area. In addition, it states "Interpretation will be accomplished in a manner which protects the unique botanical attributes of this area." (USDA- FS, 1987b: p. 146). The Forest Plan Record of Decision directs the Forest Supervisor to establish a boundary for a Special Interest Area (USDA-FS, 1987c: p.2) to protect the bunchberry dogwood. The Forest Supervisor has authority to define Special Interest Areas up to 160 acres in size.

Management Area Direction

WSR Management Area Emphasis

Management emphasis in the WSR is to preserve and protect the outstandingly remarkable values (WSR values) for which the river was congressionally designated. The WSR Act specifies that designated rivers and the outstandingly remarkable values they possess will be "protected for the benefit and enjoyment of present and future generations". The outstandingly remarkable values for this WSR are: scenery, recreation, geology, ecology, fisheries and wildlife.

Outstandingly Remarkable Values

Section 10a of the WSR Act specifies that designated rivers and their WSR values will be protected and enhanced. This particular WSR qualified for inclusion in the Wild and Scenic Rivers system based on the WSR values of: scenery, recreation, geology, ecology, fisheries and wildlife (USDA-FS, 1987a). The following describes an overview of WSR values to be protected.

Scenic Values

The scenic beauty of the landscapes within and surrounding the WSR are extraordinary. The geology of the Jemez Mountains provides a variety of dramatic landforms with vibrant colors. Scenic attractions include striking views of conifer-covered mountain peaks, open mountain meadows, impressive volcanic rock formations, dazzling multicolored rock cliff faces, and the tumbling river with its lush vegetation. The color, variety and vastness of the landscapes are unique when compared to the arid landscapes beyond the Jemez Mountains where the WSR flows.

The river originates as a small meandering stream in the vast grassland crater of the Valles Caldera. Through the Recreation segment, the river winds its way through small riparian meadows, creating a pastoral scene through which Forest Trail 137 (Trail 137) traverses. Within the Wild segment, the river enters a rugged stretch of canyon where cliffs and huge boulders emerge among slopes densely covered with mixed varieties of conifers. In places the river flows from canyon wall to canyon wall, making passage impossible without wading or using footbridges along the stream. Occasionally, a bend in the river will lead to an open meadow alive with seasonal wildflowers.

The Scenic segment of the river continues through another rugged canyon, and tumbles over the bedrock creating Jemez Falls, a cascade dropping more than one hundred feet. From the falls, the river flows through a steep canyon with limited access. The canyon opens up as it approaches the looming solid rhyolite monument of Battleship Rock; here the riverbanks provide exquisite beauty. The many varicolored cliffs around the confluence thrust up to a typical azure sky; shadows and sunlight playing across the landscape complete a dazzling mosaic.

Recreational Values

The WSR corridor has long been a recreation destination for visitors from the region, as well as from around the country. Local users center their recreation activities around multi-generational family gatherings where there is water. For some, a hike along the Trail 137 is not complete without a relaxing dip in the natural pools at McCauley Warm Spring. Throughout the WSR corridor, day use is high in the summer months, and overnight use, both in developed sites and dispersed sites, occurs spring through autumn. Commonly observed activities include hiking, fishing, camping, photography and sightseeing. After snowfall, day use is again high when cross-country skiing, snowmobiling, tubing and snowshoeing are popular.

The Recreation segment has one developed site, Las Conchas Fishing Access, and Las Conchas Trailhead, which accesses Trail 137. This portion of the trail closely follows the river for a mile, and its gentle grades and spectacular scenery make this a popular stretch. In the Wild segment, the canyon walls are right up to the river, but anglers often hike up the box canyon to their favorite fishing spots. Half a mile in from the highway at each end of the box canyon, people access the river for a variety of other recreational activities. The very large boulders and deep pools in the river create popular sites for jumping and swimming. Snowplay, cross-country skiing, and snowmobiling also occur in this area. The Scenic segment is a destination for anglers from all over the state, especially the urban areas of Albuquerque and Santa Fe. Access is primarily up the river from Battleship Rock. Other visitors take Trail 137 along the ridge to McCauley Warm Spring and Jemez Falls. This affords the opportunity to experience a truly stunning landscape view across to the walls of Jemez Canyon.

Geologic Values

From sheer cliff faces to pock-marked tuff exposures, flat-topped mesas to lush canyon bottoms, the wide expanse of the Valle Grande to the domed peak of Redondo, this extraordinary landscape was created by eons of gradual and cataclysmic geologic events.

North of the WSR the Preserve contains nine miles of headwaters for the East Fork. Cataclysmic eruptions rocked the area 1.2 million years ago and 50 cubic miles of volcanic ash and rock were ejected. Around 85,000 years ago, the volcano erupted again. This recent geologic event produced Battleship Rock, a colorful, striking vertical abutment at the confluence of San Antonio Creek and the East Fork. Battleship Rock was put in place all at once by a volcanic flow into an ancient river canyon cutting through sedimentary rock formations. Weathering over time has removed the relatively softer sediments, leaving the "prow" of the battleship exposed as a towering monolith.

Ecological Values

The WSR passes through a variety of vegetation communities including meadows, conifer stands, riverine habitat, rock cliffs and volcanic formations. Each community is comprised of a mosaic of smaller habitats. Elevation is as high as 8600 feet at its eastern

edge with the Preserve, to 6700 feet at Battleship Rock. This variety has resulted in a diversity of ecological systems within the WSR corridor. With a diversity of communities, come edges and ecotones at the point where these habitats join. The abundance and diversity of life forms is often greatest in and around edges, and many plant and animal species are dependent on these transition areas for life.

Two unique plant species occur within the corridor, giant helleborine and bunchberry dogwood (referred to in previous documents as chatterbox orchid and Canadian dogwood, respectively). The giant helleborine is proposed as a rare species in New Mexico, and the bunchberry dogwood population in the WSR is thought to represent the extreme southern range of this species.

Fisheries Values

The East Fork, as part of the Jemez River, once hosted the largest populations of Rio Grande cutthroat trout (RGCT) in the Jemez Mountains. Historically, the native fish assemblage throughout the East Fork was comprised of RGCT, Rio Grande chub, Rio Grande sucker, longnose dace, and fathead minnow. The current native fish assemblage excludes RGCT, last found in this drainage in 1950. Since then, German brown trout, rainbow trout, Yellowstone cutthroat trout and other non-natives have replaced RGCT.

Due to the geology of the area, habitat diversity is dynamic, creating chutes, waterfalls, deep pools, cascades and meandering channels. The Jemez River, fed in part by the East Fork, has a regional reputation for high quality cold-water fishing, a phenomena rare in the arid Southwest.

Wildlife Values

The wide variety of vegetative communities allows for a diverse complex of wildlife species. Periodic surveys and field visits by wildlife biologists have revealed the variety of wildlife species throughout the corridor. During certain times of the year, the river becomes a passageway for wildlife moving off the Preserve (e.g. Rocky Mountain elk). People have seen bear, elk, deer, mountain lion and bobcat within the WSR corridor.

The WSR provides suitable habitat for a few species listed as federally threatened or Forest Service sensitive, such as Mexican spotted owl (threatened), Jemez Mountains salamander (sensitive) and northern goshawk (sensitive). Some uncommon species, such as the spotted bat and black swift, have been found within the WSR. These two species could be an indication of the benefit brought by ecotones for enhancing species diversity. The black swift is of particular interest since it is the only known colony in the state of New Mexico.

Description of Alternative 3 (Preferred Alternative)

This alternative primarily emphasizes rehabilitating soils and vegetation in localized areas where productivity has been lost and/or ecological conditions have declined. The objectives are to improve vegetative productivity and physical/biological conditions to enhance WSR values.

Secondarily, this alternative increases emphasis on controlling recreational activities in order to achieve a higher level of environmental protection and enhancement. These controls would boost the effectiveness of enhancing WSR values, since heavy recreational use is degrading some of the resource conditions. Recreational opportunities would still be provided and recreational values protected.

Third, this alternative further controls livestock use in the area by closing the remaining gap (road bed) in the North pasture of V// where cattle access the river to drink. Cattle would only be allowed to drink at the river at one or two narrow (50-foot) water gaps in the North pasture of Las Conchas Allotment as an occasional, short-duration back-up water source if upland water developments have been damaged. Cattle would continue to be prohibited from grazing in the riparian zone, based on existing natural barriers and previously authorized fences.

Standards and Guidelines for Alternative 3 (Preferred Alternative)

This chapter includes two types of standards and guidelines: those adopted without modification from current management areas within this WSR, plus new or modified standards and guidelines. *New or modified standards and guidelines are in italicized print.* Some of the new standards and guidelines are modifications of existing standards and guidelines, re-phrased for greater clarity and specificity regarding protection of WSR values. Applicable forest-wide standards and guidelines that address protection and enhancement of designated resource values are listed in Appendix A in the EA, and are not duplicated in this section. Forest-wide direction will be used in managing this area in addition to the management area standards and guidelines listed in this section.

Travel Management: Roads, Trails & Motorized/Non-motorized Uses

Prohibit new road construction and motorized use, with these exceptions: Highway 4, developed recreation sites, and roads needed for private land access, authorized special uses, mine claim access or administrative actions related to protecting WSR values.

Prohibit use of motorized rafting or boating.

Permit the use of mechanical conveyances, such as mountain bicycles.

Relocate, rehabilitate or eliminate user-created trails that are causing adverse impacts to soil, water, fisheries, wildlife, or other resource values.

Maintain Forest Service system trails to agency standards for a Semi-Primitive Non-Motorized ROS classification, and manage trails for a variety of non-motorized uses. Wheelchairs are allowed. Grant occasional exceptions for motorized use on trails on a case-by-case basis for administrative or permittee need, such as fire fighting, search and rescue, and trash cleanup.

Provide trail segments and trail bridges over streams as needed to disperse use, reduce resource impacts and increase user satisfaction. Repair or replace existing bridges over streams to protect river resources while maintaining free-flowing conditions.

Create partnerships with user groups to help maintain trails, clean up along the river, and rehabilitate damaged sites.

Continue to work with the New Mexico State Highway and Transportation Department to have snow plowed from the off-highway parking areas used for wintertime recreational access.

Recreation

Manage the entire river corridor as a Semi-Primitive Non-Motorized Recreation Opportunity Spectrum (ROS) setting, except along the highway and in developed recreation sites. Manage the Highway 4 corridor (within 75 feet on each side of centerline) as a Rural ROS, and manage developed recreation sites as Roaded Natural ROS.

Reduce over-capacity parking situations where they occur, such as by encouraging parking in less utilized areas or other methods.

Emphasize resource protection and scenic values at popular, heavily used sites, such as by rehabilitating denuded sites, and designing or re-routing trails.

In the Wild segment, water crossings will be developed to the minimum level and only where deemed necessary for protecting resources and providing for public safety.

Manage Las Conchas Fishing Access area at the standard service level.

Provide information and education to warn people about the dangers associated with cliff jumping, as well as ingesting river and spring water. Consider providing public information about accidents that occurred in the area, such as those associated with cliff-jumping or the use of alcoholic beverages or drugs while engaged in recreational activities.

Provide wildlife viewing opportunities where possible.

Where fences are deemed necessary, design fences that allow for convenient public passage-ways in areas of high recreation use.

Discourage camping in riparian areas. Where feasible within the riparian zone, close heavily impacted dispersed sites and eliminate evidence of dispersed camping including fire rings, trash and human waste. These sites may be closed either permanently or temporarily on a rotating basis to allow sites to rest and recover.

Prohibit camping in the area adjacent to Las Conchas Trailhead, before the first stream crossing.

Enforce closures to ensure that, cumulatively, resource impacts remain within acceptable limits.

Provide designated dispersed campsites or camping zones away from the stream banks and outside riparian zones.

No new developed campgrounds, picnic grounds or trailheads will be constructed within the corridor. Picnic tables are allowed.

Prohibit rock climbing in the petroglyph area at Battleship Rock to protect this resource.

Provide frequent monitoring and official presence at the more heavily used dispersed recreation areas.

Inform the public about requirements for proper disposal of trash and human waste, animal control, and other Leave No Trace techniques, and strictly enforce those requirements.

Coordinate with New Mexico State Highway and Transportation Department to find appropriate ways to manage the pedestrian traffic along Highway 4 to discourage walking in travel lanes.

In consultation with the New Mexico Department of Game and Fish, prohibit discharging firearms in the river corridor. Permit bow hunting during hunting season, in accordance with State regulations.

Scenery

Manage for a High Scenic Integrity Objective throughout the corridor.[1]

New utility lines, as well as existing utility lines (when permits expire or come up for renewal) will be buried or relocated where technically and economically feasible to maintain High Scenic Integrity.

[1] The High Scenic Integrity Objective from the new classification system corresponds to the former Retention Visual Quality Objective.

Design all facilities and structures with the emphasis on maintaining the natural appearance of the landscape. Emphasize use of native or natural materials such as local rock, logs, and indigenous plant species.

Locate any tree harvest decks and landings outside of the immediate foreground zone of the river, trails, and recreation areas. Restore landings to original or characteristic contours and re-vegetate within one year of project completion.

Design silvicultural activities such as thinning and reforestation, to enhance visual landscape diversity by providing for a variety of tree sizes, spacing, and densities.

Retain and encourage existing groupings of gambel oak and other understory vegetation to promote visual diversity. Allow planting/seeding of indigenous understory species.

Seeding mixtures will contain a high percentage of berry producing shrubs, colorful plants, and wildflowers.

Dispose of activity-generated slash in the immediate foreground zone of the river, trail and recreation areas within one year of project completion, with the exception of a maximum of five logs per acre of minimum 12" diameter and 15' length for wildlife.

Wildlife

Manage recreational facilities located in T&E (threatened and endangered) habitat to protect the habitat, and where opportunities exist, enhance habitats to contribute to recovery of T & E species.

Forage use by grazing ungulates (cattle, elk, etc) will be maintained at or above a condition that assures recovery and continued existence of T & E species.

Consider elk migration routes when designing new fencing, and use materials that facilitate elk crossings where appropriate.

Continue to cooperate with New Mexico Department of Game and Fish, to manage beaver habitat and populations.

Emphasize vertical habitat diversity over horizontal diversity.

Maintain or enhance mule deer habitat quality.

Wildlife management in the river corridor should emphasize late forest seral stage habitat, threatened or endangered species, and fisheries.

Manage 75% of the forested areas to have an average of 300 snags per 100 acres.

Fisheries, Water and Riparian

In cooperation with managers of the Valles Caldera National Preserve, work to develop a management program for improving water quality and meeting water quality standards in the headwaters of the East Fork (outside the designated corridor). Work together to avoid impoundments or diversions in the headwaters of the river that would interrupt the natural hydrologic process and prevent periodic bank overflow.

Restore and maintain riparian and stream conditions in accordance with properly functioning condition guidelines, including those for sediment, large woody debris, pool development, pool quality, width-depth ratios, and stream-bank stability.

Stabilize stream banks that have been denuded and take measures to maintain long-term stream bank protection.

Enhance pool development and fish habitat quality by adding large woody debris to the river system. Ensure this activity will not adversely impact the free-flowing characteristics of the WSR.

In cooperation with managers of the Valles Caldera National Preserve and New Mexico State Game and Fish, work toward improving fish habitat conditions to meet the designated use as a "high quality cold water fishery", and consider the opportunity for returning the East Fork to an entirely native fishery, including Rio Grande cutthroat trout, Rio Grande chub, Rio Grande sucker, longnose dace and fathead minnow.

Utilize the latest agency-approved scientific methods to conduct periodic inventories and prioritize resource improvement work along the river.

Establish a partnership with Camp Shaver for joint stewardship and possible cooperative projects aimed at resource improvement and interpretation along the stream reach that occurs near the Camp.

Ecology, including Vegetation and Soil

Manage land use activities to ensure that soil and vegetative productivity is maintained within the site potential for the area.

In localized areas where erosion is exceeding "tolerance rates" and contributing sediment to the river, take corrective measures to reduce erosion to acceptable levels based on agency standards.

Rehabilitate the area above the cliff jumping area to restore and protect the fragile vegetation growing in the rocky cliffs.

Enforce laws that prohibit trespass occupancy (squatting, illegal residency).

Manage the bunchberry dogwood (formerly Canadian dogwood) plant community as a Botanical Special Interest Area. *Protect the bunchberry dogwood and giant helleborine (formerly chatterbox orchid) from being trampled, damaged or removed.*

Manage for natural regeneration of trees and shrubs whenever possible. If planting is necessary, use conifer seedlings grown from the local seed zone.

Silvicultural and fuel reduction practices (e.g. thinning, harvesting, prescribed fire) may be used to protect or enhance WSR values, such as by reducing the risk of severe damage by insects, disease and high-intensity crown fires. In the Wild segment, cutting of trees is not permitted except when needed in association with a Semi-Primitive Non-Motorized recreation experience (such as clearing for trail) or to protect the environment from high-intensity crown fires.

Manage late seral conifer stands for development and maintenance of old-growth characteristics, including large trees, snags and down logs.

Provide self-guided interpretive trails as opportunity permits, including interpretive trails to unique geologic features such as Jemez Falls and Battleship Rock.

Emphasize information and education programs that teach Leave No Trace ethics, the benefits of resource restoration projects, and recreational opportunities outside the corridor or in under-utilized areas within the corridor. Include information regarding the area's outstandingly remarkable values.

If over-utilization of forage vegetation is occurring due to elk grazing, work in cooperation with New Mexico Department of Game and Fish to evaluate the problem and assist in correcting the situation, such as through a reduction in elk numbers on a localized basis.

Heritage Resources

Use education and interpretation as the primary means to protect heritage resources, by increasing appreciation and respect for historic and prehistoric sites.

Lands, Minerals and Special Uses

New mining claims, mineral leases and common variety mineral sales are prohibited based on the mineral withdrawal established by the Jemez National Recreation Area legislation.

Establish and maintain fences or other barriers along WSR corridor boundaries where needed to discourage public trespass on private land or unauthorized livestock use.

Allow continuation of existing special use and road use permits as long as they continue to be compatible with the WSR Act.

Allow commercial filming or similar special uses only when: no other reasonable alternative location can be found, activities will not adversely impact WSR values or create a public safety hazard, and areas impacted by the activity will be adequately restored to pre-filming conditions by the permittee.

Lands in the corridor are withdrawn from mineral activities, other than valid mineral rights on claims existing prior to the 1968 WSR Act, in accordance with mining and mineral leasing laws. Lands in the corridor are withdrawn from entry, sale, or other disposition under the public land laws of the United States. Easements and rights-of-way upon, over, under, across or through the WSR corridor may be granted if they do not adversely impact the outstandingly remarkable values of this WSR. (WSR Act)

Livestock Grazing

Work with the permittee to repair or replace damaged upland water developments in a timely manner to ensure that dependable upland water sources are maintained to minimize the need for the cattle to use the river as a back-up water source.

Continue to utilize rest-rotation grazing management techniques to protect and enhance WSR values. Develop and adjust Allotment Management Plans (AMPs) and Annual Operating Instructions (AOIs) as needed and work closely with the permittee(s) to avoid adverse impacts or conflicts with recreation activities.

Establish and enforce forage utilization standards for combined use by cattle and elk that maintain vegetation health and vigor, and other ecological conditions at the "fair" or better rating. If cattle use results in a "poor" rating or declining trend, take corrective action, such as adjusting cattle numbers, timing, duration, or other methods.

When developing livestock management plans, emphasize reducing conflicts with recreationists. For example, plan and design fences and other range improvements that distribute livestock away from the heaviest recreation use areas.

Prohibit livestock grazing in the riparian zone. Limit livestock river access to drink water to two water gaps (Las Conchas Allotment). Drinking at the water gaps in Las Conchas Allotment is limited to occasional, short-duration use only when upland water developments have been damaged.

Implementation Plan

The Implementation Plan contains those actions considered technically, physically and economically feasible to implement, which address specific issues, concerns or opportunities, and meet the proposed programmatic management direction (Alternative 3). These actions are considered possible (or probable) rather than actions to be immediately authorized because most of the actions require a site-specific NEPA analysis and decision making process prior to approval for implementation. The project-level NEPA process will include development of issues and alternatives, analysis of effects of each alternative, and public involvement. In addition, implementation of site-specific project-level actions is dependent upon budgets and national, regional, or local priorities. Therefore, this document identifies actions that are the most likely to be proposed within the WSR corridor, along with a prioritized schedule for implementing those actions.

Assigning priorities was based on the magnitude or the existing problem and the urgency in addressing the problem. The estimated costs to implement possible actions were also considered, since some actions require additional time to acquire the necessary funding to implement. Often the Forest Service must find financial partners such as another agency or organization in order to acquire the necessary funding.

The list of possible actions does not include every possible or 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 WSR corridor may change due to wildfire, floods, or other events. If conditions change, new actions may need to be developed to protect and enhance the WSR values.

Location	Problem	Management Standards & Guidelines From Alternative 3	Possible Actions, Likely to be Proposed	Target date to Implement
Scenery, Recreation, Ecology, Fisheries, Wildlife Values				
Jemez Falls (Falls reach); McCauley Warm Spring (Battleship reach); each end of Box canyon; in Middle reach where the river crosses the Highway. Dispersed campsites mostly occur in Conchas and Middle reaches	Heavily used dispersed sites are dominated by trampled vegetation, compacted soil, user-created trails, trash and human waste. Some user-created trails have damaged stream banks, and increased erosion and sedimentation impacts. This is particularly common at some dispersed campsites. .	Emphasize resource protection and scenic values at popular, heavily used sites, such as by rehabilitating denuded sites, and designing or re-routing trails. Prohibit camping in the area adjacent to Las Conchas Trailhead parking lot. Discourage camping in riparian areas. Where feasible within the riparian zone, close heavily impacted dispersed sites and eliminate evidence of dispersed camping including fire rings, trash and human waste. These sites may be closed either permanently or temporarily on a rotating basis to allow sites to rest and recover. Use partnerships with user groups to help maintain trails, clean up along the river, or rehabilitate damaged sites. Relocate, rehabilitate, or eliminate user-created trails that are causing adverse impacts to river values. Stabilize stream banks that have been denuded and take measures to maintain long-term stream bank protection. Provide trail segments and trail bridges over streams as needed to disperse use, reduce resource impacts and increase user satisfaction. Inform the public about requirements for proper disposal of trash and human waste, animal control, and other Leave No Trace techniques, and strictly enforce those requirements. Provide frequent monitoring and official presence at the more heavily used dispersed recreation areas.	Plant willows and native grasses to stabilize vegetation along trail to and at Jemez Falls, and repair the observation deck. Eliminate specific user-created trails that are excessively eroding and/or adding sediment to the river, contributing to loss of riparian habitat, or creating other impacts. Reconstruct or do maintenance work to improve or distinguish designated trail segments and trail bridges over the river. Dismantle fire rings. Rake and seed denuded areas to restore vegetative productivity. Designate which areas are open or closed to overnight camping in all literature, at trailheads, and through appropriate placement of signs. Enforce closures regarding camping in sensitive riparian areas, whether temporary or permanent. Solicit partnerships with user groups to help maintain trails, clean up along the river, or rehabilitate damaged sites.	Begin rehab. actions in 2003, and continue with maintenance and enforcement activities thereafter

Location	Problem	Management Standards & Guidelines From Alternative 3	Possible Actions, Likely to be Proposed	Target date to Implement
Recreation and Travel Management (Roads, Trails)				
Throughout See roads map in EA Appendix for road locations.	Some roads are unnecessary and detract from scenic values, increase unauthorized motorized use, reduce wildlife values, etc.	Prohibit new road construction and motorized use, with these exceptions: Highway 4, developed recreation sites, and roads needed for private land access, authorized special uses, mine claim access or administrative actions related to protecting WSR values.	Close or obliterate (decommission) all unnecessary roads in accordance with the transportation plan and map developed for the Jemez NRA. This will result in closing or decommissioning approximately 13 of the 22 miles of existing open road in the WSR corridor.	2004-2005
East Fork Trailhead	Snow occasionally accumulates in the winter at the lower parking area where people access Trail 137 for nordic skiing	Continue to work with the State Highway Department to have snow plowed from the off-highway parking areas used for wintertime recreational access.	Continue to work with the State Highway Department to have snow plowed from this area.	Current and on-going
Throughout most of WSR	Recreational use is at or exceeding capacity in most of the WSR, other than at East Fork Trailhead or in the upland areas	Reduce over-capacity parking situations where they occur, such as by encouraging parking in less utilized areas or other methods. Provide public information that emphasizes opportunities outside the corridor to minimize over-capacity use within the corridor. *No new developed campgrounds, picnic grounds, or trailheads will be constructed within the corridor (picnic tables are allowed).*	Work with State Highway Department to discourage people from parking along the Highway shoulder (where it leads to resource damage at the river), and encourage parking at East Fork Trailhead instead. Edit existing public information materials to discourage use of heavily used sites and encourage better distribution of visitors.	2004-2005
Trail 137 system	Some users get lost due to poor trail definition, resulting in more user-created trails. Some users do not know that motorized use is not allowed in most of the WSR	Maintain Trail 137 system to agency standards for semi-primitive non-motorized ROS classification.	Maintain directional and allowable use signs along Trail 137, and maintain the trail to keep it well defined.	Current and on-going maintenance
Trail 137 system	Some trail bridges over the river have deteriorated	Repair or replace existing bridges over streams to protect river resources while maintaining free-flowing conditions	Repair or replace log bridges	2003-2004

Location	Problem	Management Standards & Guidelines From Alternative 3	Possible Actions, Likely to be Proposed	Target date to Implement
Recreation - Safety				
Undesignated parking along Highway 4, south of East Fork Trailhead, and at Las Conchas Trailhead	Parking and pedestrian traffic at these locations along the highway shoulder are safety hazards	Reduce over-capacity parking situations where they occur, such as by encouraging parking in less utilized areas or other methods. Discourage parking along Highway 4 outside designated parking areas. Coordinate with NM State Highway and Transportation Department to find appropriate ways to manage the pedestrian traffic along Highway 4 to discourage walking in travel lanes.	Edit existing written information such as Recreation Opportunity Guides to discourage parking along Highway 4 and encourage greater use of East Fork Trailhead parking. Meet with Highway Transportation Department to find other ways to minimize parking and pedestrian traffic along Highway 4.	Begin consultation with the New Mexico State Highway and Transportation Department in 2003; continue with other activities in 2004-2005
Cliffs at west end of Box reach; McCauley Warm Spring (Battleship reach)	There are safety concerns related to cliff jumping, as well as an amoeba that could affect the health of bathers in the warm spring.	Provide information and education to warn people about the dangers associated with cliff jumping, as well as ingesting river and spring water. Consider providing public information about accidents that occurred in the area, such as those associated with cliff jumping or the use of alcoholic beverages or drugs while engaged in recreational activities.	Add information to existing brochures and written materials such as Recreation Opportunity Guides at Jemez District Office and Walatowa Visitor Center Increase patrols, official presence, and contracts with the public at the cliffs	Begin on-site public contact efforts in 2003; continue with other activities in 2004-2005
Throughout	Discharging of firearms poses a serious safety hazard in this heavily visited area	In consultation with the NMG&F, prohibit discharging firearms in the river corridor. Permit bow hunting during hunting season, in accordance with State regulations	Work with NMG&F to remove area from rifle hunting Use CFR regulation to enforce this prohibition	Begin consultation with NMG&F in 2003

Location	Problem	Management Standards & Guidelines From Alternative 3	Possible Actions, Likely to be Proposed	Target date to Implement
Heritage Resources				
Battleship Rock	Rock climbers damage ancient petroglyphs on the cliffs of Battleship rock	Prohibit rock climbing in the petroglyph area at Battleship Rock.	Add information to existing brochures and other existing written materials at Jemez District Office and Walatowa Visitor Center that describes allowable and prohibited uses and their rationale.	Current and on-going
Ecology (Plants)				
In/near Botanical Special Interest Area and McCauley Warm Spring	Trampling of unique plants such as giant helleborine and bunchberry dogwood	Manage the bunchberry dogwood plant community as a Botanical Special Interest Area. Protect the bunchberry dogwood and giant helleborine form being trampled, damaged or removed.	Improve trail definition on the designated trail and obliterate certain user-created trails to minimize trampling of unique plants. Add information to existing brochures and other existing written materials at Jemez District Office and Walatowa Visitor Center	2003 2004-2005
Cliffs at west end of Box reach	Climbers disturb cliff vegetation.	Rehabilitate the area above the cliff jumping area to restore and protect the fragile vegetation growing in the rocky cliffs.	Rake and seed in native plants. Eliminate some user-created trails, and/or add boulders or other natural features to discourage further impact	2004-2005

Location	Problem	Management Standards & Guidelines From Alternative 3	Possible Actions, Likely to be Proposed	Target date to Implement
Livestock Grazing (mostly affects Scenery, Recreation, Ecology, Fisheries values)				
Las Conchas and V// Range Allotments	Cattle are still able to access the river through a 1-mile opening in East Pasture of Las Conchas, and the cattle trail in that pasture is contributing sediment to the river (Conchas reach). Cattle also access the river through an old roadbed in V// North Pasture. They also use the two water gaps in Las Conchas North Pasture when upland water sources are in disrepair. Cattle trails to the river increase erosion and contribute sediment into the river. Cattle leave manure that bothers some visitors, and fences bother some visitors as well; if experienced as a barrier to off-trail hikers, or a distraction from the natural scenery.	Prohibit cattle grazing in the riparian zone. Limit livestock access to the river to drink water to two water gaps (Las Conchas Allotment). Drinking at the water gaps is limited to occasional, short-duration use only when upland water developments have been damaged. Work with the permittee to repair or replace damaged upland water developments in a timely manner to ensure that dependable upland water sources are maintained to minimize the need for the cattle to use the river as a back-up water source. Continue to utilize rest-rotation grazing management techniques to protect and enhance WSR values. Develop and adjust Allotment Management Plans and Annual Operating Instructions as needed and work closely with the permittees to avoid adverse impacts or conflicts with recreation activities. Establish and enforce forage utilization standards for combined use by cattle and elk that maintain vegetation health and vigor, and other ecological conditions at the fair or better rating. If cattle use results in a poor rating or declining trend, take corrective action, such as adjusting cattle numbers, timing, duration, or other methods. Where fences are deemed necessary, design fences that allow for convenient public passage-ways in areas of high recreation use.	Complete the 1-mile of fence (pre-approved) so cattle in East Pasture of Las Conchas Allotment cannot access the river/riparian area. Fence the gaps so cattle in North Pasture of V// Allotment cannot access the river/riparian area. Design fences to include places for people to walk through, and fences that allow elk and deer to pass through/over. Obliterate the cattle trails to the river including the old roadbed, to restore vegetative productivity and reduce sediment input. Repair upland water developments that were damaged in North Pasture of Las Conchas so cattle do not need to access the river/riparian area from this pasture. Change the permits and Annual Operating Instructions to reflect the updated fence maintenance responsibilities and cattle management and monitoring responsibilities, emphasizing that cattle may only use the uplands with the one exception noted. Complete NEPA for the V// Allotment Management Plan, then update the permit and AOI. In the interim, this V// pasture is likely to continue in voluntary non-use status, or the uplands may be occasionally used as part of the V// rest-rotation system	2002 2002-2003 2002 2003 2008

Location	Problem	Management Standards & Guidelines From Alternative 3	Possible Actions, Likely to be Proposed	Target date to Implement
Fisheries, including Water Quality and Free-Flowing Condition				
East Fork Jemez River	River does not meet State water quality standards	In cooperation with the managers of the Valles Caldera National Preserve, work to develop a management program for improving water quality and meeting quality standards in the headwaters of the East Fork Jemez River (outside the designated corridor). Work together to avoid impoundments or diversions in the headwaters of the river that would interrupt the natural hydrological process and prevent periodic bank overflow. Restore and maintain riparian and stream conditions at the properly functioning guidelines, including those for sediment, large wood debris, pool development, pool quality, width-depth ratios, and stream bank stability Stabilize stream banks that have been denuded and take measure to maintain long-term streambed protection. Establish a partnership with Camp Shaver to provide joint stewardship and possible cooperative projects aimed at resource improvement and interpretation along the Scenic reach near the camp	Remove gabions and anchored large woody debris along riverbank (Conchas reach) Plant willows, alders and native grasses for bank stabilization. Enhance pool development by felling dead or dying trees into river (Conchas, Middle, Falls and Battleship reaches). Eliminate user-created trails that contribute to stream bank destabilization, riparian impacts or water quality degradation (as previously described).	2002-2003 2004-2005 Annually, as opportunities arise 2003-2004
Riparian areas adjacent to river	Camping along the river is damaging riparian area and increasing sediment into river	Discourage camping in riparian areas. Where feasible within the riparian zone, close heavily impacted dispersed sites and eliminate evidence of dispersed camping including fire rings, trash and human waste. These sites may be closed either permanently or temporarily on a rotating basis to allow sites to rest and recover. Prohibit camping in the area adjacent to Las Conchas Trailhead, before the first stream crossing. Provide designated dispersed campsites or camping zones away from the stream banks and outside riparian zones.	Eliminate some campsites using such things as boulders, logs, barriers to naturally discourage Rake and seed in eroded areas. Clean up trash, waste Add written information and signs where appropriate to inform people about where camping is allowed or prohibited.	Begin rehab. in 2003, and continue with maintenance and enforcement activities thereafter

Location	Problem	Management Standards & Guidelines From Alternative 3	Possible Actions, Likely to be Proposed	Target date to Implement
Riparian areas adjacent to river	Camping along the river is damaging riparian area and increasing sediment into river	Enforce closures to ensure that, cumulatively, resource impacts remain within acceptable limits.	Increase law enforcement patrols to keep people out of closed areas.	2004+
East Fork Jemez River	River currently does not function as a "high quality cold water fisheries" stream that would support native Rio Grande Cutthroat trout (RGCT), and it has been stocked with non-native fish that preclude RGCT.	In cooperation with the Preserve, work toward improving fish habitat conditions to meet the designated use as a "high quality cold water fishery" and consider the opportunity for returning the East Fork to an entirely native fishery including Rio Grande cutthroat trout, Rio Grande Chub, Rio Grande sucker, longnose dace and fathead minnow	Work directly with Preserve managers as they develop their management plan and project-level NEPA documents, including those for management of livestock and elk, roads, recreation and timber. Once properly functioning conditions and water quality standards have been met throughout the East Fork, work with New Mexico Dept of Game and Fish toward the goal of re-establishing a native fisheries in the East Fork.	Current and on-going 2007-2012 (long-term goal)

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 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 East Fork WSR Management Plan (and Forest Plan) to verify whether it is still relevant and appropriate.

The following table lists the location, type of measurement, method and frequency of monitoring that will be used in the WSR corridor. 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 no likely 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.

Location	Measurement	Method	Frequency
Heavily used dispersed recreation sites: Along Trail 137 from Las Conchas Trailhead to East Fork Trailhead; Cliff Jumping Area near Box Canyon, McCauley Warm Spring area.	Change in area of impact (acres); # of cars parking outside designated areas; and # of visitors	Collect and record field data	Once during peak use in 2002 & 2003 as baseline, then every 3-5 years to measure change and trend over time.
Developed sites: Las Conchas Fishing Access, Jemez Falls Campground and Group Site, Battleship Rock Picnic Area and Trailhead	# of cars and # of visitors	Compile and evaluate fee collection data	At end of season in 2002 and 2003 for baseline, then every 3-5 years to evaluate change and trend over time.
Developed Trailheads and Trail Use: At Jemez Falls, East Fork, Las Conchas and Battleship Trailheads	# of cars at trailhead	Collect and record field data	Once or twice during peak use in 2002 & 2003 as baseline, then every 3-5 years to evaluate change and trend over time.
East Fork River	In-stream, stream bank, riparian conditions, using proper functioning condition survey protocol	Collect data through stream surveys, then compile and record data	Every 3-5 years to compare with 2001 baseline survey and 1991 survey
East Fork River, in Valles Caldera National Preserve and in WSR	Selected water quality parameters	NM Environment Dept samples water quality and records attainment status in 305b report	In 2003 as baseline, then every 3-5 years
Allotment pastures- Las Conchas and V//	Monitor utilization and permit compliance per standard protocol Range readiness, facilities condition Range production and utilization and capacity analysis	Collect and record field data from key use areas Permittee and range technicians collect and record field data Collect and record field data from key use areas	Annually Annually Prior to 2008 NEPA process for V// Allotment
Throughout	# of tickets and warning given	Increase patrols to ensure compliance with new restrictions on recreation uses	At least weekly during peak periods