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# Final Pecos Wild and Scenic River Management Plan

Pecos/Las Vegas Ranger District, Santa Fe National Forest San Miguel and Mora Counties, New Mexico







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# **BACKGROUND**

# **Purpose**

This comprehensive Management Plan for the Pecos Wild and Scenic River (WSR) establishes programmatic management direction for the WSR corridor. It has been developed to implement the direction of the Wild and Scenic River Act of 1968 as amended by Public Law 101-306 on June 6, 1990 to include 20.5 miles of the Pecos River 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 Pecos River to protect and enhance the outstandingly remarkable recreation, scenic, and cultural/historic values.

This WSR Management Plan will guide all development, management, and restoration activities within the WSR corridor. It includes standards and guidelines from the Proposed Action Alternative, an Implementation Plan with a list of possible projects and target implementation dates, and a Monitoring Plan. The standard and guidelines are a statement of the WSR Management Plan's management direction; however, the potential projects and implementation schedule are estimates and depend on site-specific NEPA (National Environmental Policy Act) analysis and the agency's budgeting process.

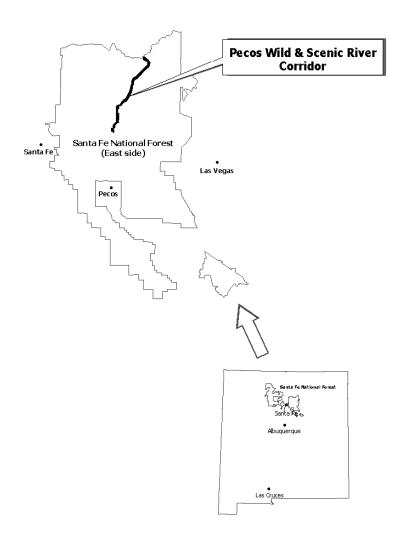
# **WSR Location and Boundary**

The WSR is located in San Miguel and Mora Counties in the Sangre de Cristo Mountains of northern New Mexico, approximately eleven miles north of the town of Pecos (Figure 1: Vicinity Map, page 3) in portions of:

Township 18 North, Range 12 East, Sections 3, 10, 15, 21, 22, 27, 28, and 33. Township 19 North, Range 12 East, Sections 13, 23, 24, 25, 26, 34, and 35. Townships 19 & 20 North, Range 13 East (unsurveyed portion of Pecos Wilderness)

The final boundary approximates a ¼-mile distance on each side of the river, with adjustments made to follows subdivision and legal landlines. The final boundary description was forwarded to Congress and published in the Federal Register on March 24, 2000.

Figure 1: Vicinity Map



# WSR Classifications, Including Segments

The WSR is 20.5 miles long with a corridor averaging 320 acres per mile. (Figure 2: River Segments Map, page 4) The WSR segments were classified based on an eligibility study approved in the 1987 Santa Fe National Forest Plan (Forest Plan) using these 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, pg 335 (USDA-FS, 1987a).

The *wild* segment is entirely within the Pecos Wilderness. It flows through a variety of terrain, from steep canyons of large boulders to meadows. The shoreline is primitive and the water is unpolluted. This segment is only accessible by trail. The *recreational* segment is outside the Wilderness and is characterized by lower stream gradients and easier accessibility. There are cabins and other modifications along the shoreline. The paved road that generally parallels the river throughout this segment provides easy access for

recreational activities. This WSR is entirely free of impoundments that restrict its freeflowing character.

Figure 2: River Segments **River Segments** Pécos Falls Beatty's Cabin Pecos Wildemess Recreational Segment Pecos Wildemess Cowles River Corridor Pecos River

Terrero

Stream Pecos watershed Non-Federal lands

## Relationship to Laws, Regulations, Directives and the Forest Plan

Provisions in the WSR Act, Public Law 101-306

Public Law 101-306 established the Pecos WSR and defined the 20.5-mile WSR corridor by segments, established a preliminary boundary and provided 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).

Provisions of the Act that require a WSR be free-flowing 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 condition, water quality or outstandingly remarkable values. The Act also provides a standard that governs water resources projects proposed below, above or on any stream tributary to the designated river.

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 Management Plan to protect and enhance the values for which it was designated.

The wild segment has no modifications that affect river values. Modifications to the recreational segment include roads, bridges, and cabins. Seven bridges cross the river, two on Highway 63, one on state land, and four on national forest land. These facilities existed prior to establishment of the WSR. While the maintenance of existing facilities is permitted, new construction projects 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** 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, user capacity, 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**

The Forest Service Manual (FSM) 2354, July 1994, provides additional policy direction for administration of WSRs. The FSM 2354.3 provides guidance on developing management plans to protect and enhance values, with detail on managing recreation and other uses.

## Forest Plan and the Proposed Forest Plan Amendment

This WSR Management Plan is based on the preferred alternative, the Proposed Action alternative, as described and analyzed in the accompanying Environmental Assessment (EA) for the Pecos Wild and Scenic River Management Plan and Forest Plan Amendment. This Plan incorporates the management direction (standards and guidelines) from the Proposed Action.

After a public review of the EA and Draft Management Plan, a Decision Notice will be issued, documenting the Forest Supervisor's decision about whether to select the Preferred Alternative described in this Plan, or another alternative analyzed in the EA. The final approved WSR Management Plan will govern the management of Forest Service activities in the Pecos WSR corridor. The new standards and guidelines will be incorporated into the Forest Plan as management area direction for the new Management Area F- Wild and Scenic Rivers, which will also include direction for the Chama WSR and East Fork Jemez WSR.

Site-specific NEPA environmental analysis will be done for actions proposed on national forest lands in the WSR corridor. All proposed projects would be checked for consistency with the WSR Management Plan during the site-specific analysis.

The current Forest Plan states the management goal for the WSR as: "Manage the three rivers (Chama, East Fork Jemez, and Pecos) recommended for inclusion in the National Wild & Scenic Rivers System to maintain or enhance the values for which they were included. Maintain the rivers' free-flowing character while providing quality water-based recreation opportunities, wildlife habitat improvement, and other resource management, consistent with the intent of the 1968 Wild & Scenic Rivers Act" (USDA-FS, 1987b: p. 19). The Forest Plan also provides standards and guidelines for managing the WSRs, such as "Manage these rivers in such a manner as to protect and enhance the values for which they were classified as eligible. In order to maintain these characteristics, manage the river corridors in accordance with the guidelines set forth in Chapter 8 Section 8.2 of Forest Service Handbook 1909.12".

The WSR is within Forest Plan Management Areas H and D. The Wild segment is entirely within Management Area H, congressionally designated wilderness. Existing Management Area H direction (standards and guidelines) will continue to apply, supplemented by the proposed WSR Management Plan direction. The Recreational segment is within Management Area D. Existing Management Area D direction will be replaced by the proposed WSR Management Plan direction. However, some of the standards and guidelines from Management Area D will be retained with the proposed WSR direction. Existing direction for Management Areas D and H can be found in the Forest Plan on pages 125-129, 131-134, and 112-116.

Over the past 15 years, the Forest Service has followed existing management direction that protects and enhances 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, the Forest Service has improved the condition of the soil, vegetation and riparian areas.

Overall, water quality and other resources in the corridor are in good to excellent condition, and on an upward trend. Riparian conditions on State lands identified as a concern in previous EAs are being addressed and are showing signs of improvement. The remaining resource concern relates to increased recreational use and the potential for increased environmental degradation.

#### WILD AND SCENIC RIVER EMPHASIS & VALUES

# **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."

# **Outstandingly Remarkable Values**

Section 10a of the WSR Act specifies that designated rivers and their values will be protected and enhanced. This particular WSR qualified for inclusion in the Wild and Scenic Rivers system based on its scenic, recreational and cultural/historic values (USDA-FS, 1987a). The following describes an overview of WSR values to be protected.

#### **Scenic Values**

Scenic values for which the river was designated include rugged canyons, waterfalls, and high mountain meadows (USDA-FS, 1987a). Dramatic landscapes of pine and spruce forests interspersed with aspen patches, high cliffs and rock outcrops, mountain meadows of multicolored wildflowers, and clear water cascading through the narrow valley have attracted people to the area for many years. In the autumn, the aspen turns a vivid golden yellow. Panoramic views are revealed near the headwaters of the Pecos River. In the wild segment, the river begins as a high mountain stream, later becoming an array of shallow rapids, churning eddies, and multiple cascades. Pecos Falls is an attractive waterfall and destination for many visitors. In the recreational segment, the meandering water through the canyon provides a unique feature in contrast with the arid plains to the east and south. The few structures in the Beatty's flat area and cabins within the corridor are rustic and blend well with the landscape.

#### **Recreational Values**

The Pecos WSR has long been a recreational destination for visitors from the region, as well as from around the country. While the Pecos Wilderness adds value to the WSR, most visitors come simply to enjoy the water. The river is regarded as one of the state's most

popular trout fishing streams (USDA-FS, 1987a). Local users center their recreation activities on multi-generational family gatherings near the river. In the summer, the river provides relief for visitors coming from the hot, dry environment typical of the southwestern United States. Use is particularly high during this period, with visitors staying often for days or weeks.

Popular activities along the entire WSR corridor include hiking, camping, backpacking, horseback riding, hunting, fishing, water play, photography and sightseeing. Opportunities abound for remote, primitive activities in the wild segment, while the recreational segment offers a range of day and overnight activities from Terrero to Cowles for visitors seeking more developed, less isolated settings that are accessible by automobile.

#### **Cultural/Historic Values**

The river was designated for several cultural/historic values; for instance, there are those associated with the historic home site of George Beatty, famed trapper, prospector, and mountain man (USDA-FS, 1987a). Also, prehistoric use during the Paleo-Indian, Archaic, Basketmaker and Puebloan periods likely involved hunting, fishing, gathering herbs and other plants, and some farming, all adding to the cultural context of the corridor.

Historically, the area is very rich. As early as 1600, Spanish explorers began scouting the upper Pecos river valley for mineral wealth. With the coming of more permanent European and Hispanic settlers in the late 18th and early 19th centuries, the area saw increased use for grazing, logging, hunting, trapping and mining. Most historic sites recorded in the area lie outside the wilderness boundary and consist of trash scatters with or without structural remains dating to the late 19th and early 20th centuries. Adding to the historic values of the area are early 20<sup>th</sup> century acequias, cemeteries, sawmills, cabins and campground structures built by the Civilian Conservation Corps (CCC).

#### MANAGEMENT DIRECTION

The management direction was designed to meet WSR Act and Forest Service requirements to provide a long-term management strategy for protecting and enhancing the river's free-flowing condition, water quality, and scenic, recreational and cultural/historic values. It supplements and strengthens current Forest Plan direction by providing standards and guidelines that place priority on protecting and enhancing WSR values during the planning and implementation of resource management activities in the river corridor.

The management direction attempts to balance protection of natural resources with protection of recreational opportunities. It recognizes that visitor use in the recreational segment is increasing, and in order to provide the desired level of WSR protection and enhancement; additional controls over recreational activities are needed. While controls would improve the effectiveness of enhancing WSR values, recreational opportunities would still be provided and recreational values protected.

The standards and guidelines are as follows:

#### Recreation

- In the Recreational segment, prohibit all off-road use of motorized vehicles, and recommend that NMG&F implement the same prohibition on their lands in the corridor.
- In the Recreational segment, limit camping to developed and designated dispersed sites
- In the Recreational segment, limit parking to designated areas, and designate parking areas that allow public access to the river while protecting natural resources.
- The use of non-motorized rafts, boats, or other conveyances to float down the river is permitted. No additional facilities (put-ins, parking areas) will be constructed to facilitate floating.
- At high-use sites in the Recreational segment, ensure that toilets and trash facilities are available and maintained to agency standards.
- In the Recreational segment, manage for a Recreation Opportunity Setting (ROS) of Roaded Natural along road corridors and Rural surrounding developed sites. In the Wild segment, manage for an ROS of Primitive.
- Utilize partnerships with interested organizations to help maintain trails, clean up along the river, and rehabilitate damaged areas.
- Provide thirty days advance public notice when issuing special orders for recreation or other uses, other than for emergency orders. Special orders should be supported by appropriate design, education, and enforcement.

#### **Trails**

• In the Recreational segment, provide trails (and trail bridges over streams) as needed to direct use, reduce resource impacts, and increase user satisfaction. Provide trails that incorporate Forest Service Trails Accessibility Guidelines and access the river.

- In the Wild segment, provide a safe way for people to cross the river, consistent with protecting water quality and scenic values, and in accordance with Forest Service Manual direction.
- Relocate, eliminate or rehabilitate user-created trails that are causing adverse impacts
  to soil, water, fisheries, wildlife, or other resources. Adopt and maintain other usercreated trails where compatible with river management objectives.

# Scenery

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 Plan, design, and implement all management activities to be consistent with the Scenic Integrity Objective of "Very High" in the Wild segment and "High" in the Recreational segment<sup>1</sup>. Follow guidelines in *Landscape Aesthetics: A Handbook for* Scenery Management (or other current guides) for all management activities in the WSR corridor.

<sup>&</sup>lt;sup>1</sup> The Very High and High Scenic Integrity Objectives from the new scenery management system classification correspond, respectively, to the former Visual Quality Objectives of Preservation and Retention.

- Design facilities and structures to have a natural, rustic appearance. Emphasize use of native or natural materials such as rock, logs, and indigenous plants.
- In the Recreational segment, design silvicultural activities (such as thinning and reforestation) to enhance scenic diversity in the landscape by having a variety of tree sizes, spacing, and densities.

## **Interpretation & Information**

• Provide information at strategic locations within the corridor, such as at trailheads, to inform the public of WSR designations; camping, hunting, fishing, off-road vehicle use, and picnicking opportunities; proper disposal of trash and human waste; animal control; wilderness ethics; and Leave No Trace techniques.

# **Roads and Bridges**

- No new system roads will be constructed unless needed to access recreation sites and private property, for authorized special uses, or for administrative actions needed to protect river values.
- Recommend that the New Mexico State Highway & Transportation Department only upgrade State Highway 63 to a double-lane paved road, with a 22' maximum width, and alignment designed for 25 mph maximum speed (Guidelines for Geometric Design of Very Low Volume Roads, ASHTO, 2001--Rural Recreational and Scenic Roads).
- To enhance safety along Highway 63, coordinate with NMSH&TD to discourage people from walking in travel lanes or parking on the shoulder of the highway.
- In the Recreational segment, limit construction or re-construction of private bridges on National Forest System lands to situations where it is the only reasonable means of access to private property.
- Repair or replace existing bridges over streams to meet safety standards, protect river resources and maintain free-flowing conditions.
- Minimize the miles of open road and number of bridges while still providing adequate access to popular recreation sites, private lands, and to meet resource management needs.

# **Cultural/Historic (Heritage Resources)**

• Use education and interpretation as the primary means of protecting heritage resources.

# **Lands and Special Uses**

- Manage Cowles lease sites to protect and enhance WSR values. In areas where Cowles leases have expired, remove structures and manage those sites for recovery and maintenance of native vegetation that blends with the surrounding landscape.
- Permit commercial and non-commercial special uses only if they are consistent with Forest Service Manual direction and would not result in long-term impairment of water quality, free-flowing condition, or river values.

# **Interagency Cooperation**

- Develop cooperative management and/or cost-sharing agreements with NMG&F to provide consistent management of resources and facilities in the Recreational segment regardless of jurisdiction.
- In the Recreational segment, work with NMG&F to redesign dispersed camping in riparian areas or re-direct use to upland sites or outside of the corridor. Re-vegetate closed sites.
- Recommend that San Miguel County amend their Comprehensive Land Use Plan to include the Recreational segment of the corridor as a "cultural zone," containing direction on minimum lot size, building setbacks, agricultural uses, septic system guidelines, and floodplain restrictions to consistently protect river values.
- Work with San Miguel County and NMG&F to have interagency reviews of all Forest Service, State, and County land use planning documents regarding the Recreational segment of the corridor.

# Water, Riparian, Fish, and Wildlife

- Maintain the Pecos River's designated use as a "high quality coldwater fisheries".
- Evaluate proposed construction projects in the corridor against Section 7 of the WSR Act to ensure that there would be "no direct and adverse effect on the values for which the river was designated," and follow applicable procedures in the Forest Service Manual.
- Restore or 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.
- Re-vegetate stream banks with native vegetation.
- Prohibit removal of large woody debris from the river, as well as cutting snags and down logs.
- Fish habitat structures will be constructed and maintained to simulate natural processes, use native materials, maintain the river's free flowing condition, and meet Section 7 requirements if applicable. In addition, in the Wild segment, follow applicable Forest Service Manual direction.
- In cooperation with NMG&F, work toward reintroduction of native fish while retaining recreational fishing opportunities.
- In the Wild segment, work with NMG&F to evaluate elk forage utilization. If overutilization becomes apparent, assist in with efforts to correct the situation, such as through a redistribution of hunting pressure or a reduction in elk numbers on a localized basis.
- Recommend that NMG&F extend the length of the Special Trout Waters designation (bag limit of 2 fish, 12 inch minimum), from ½ mile above the confluence with Mora Creek to the bridge on Trail 397.

# Vegetation

- Allow harvesting and prescribed burning in the Recreational segment only when the
  primary purpose is to reduce the risk of severe damage by insects, disease, or highintensity fires, or otherwise protect water quality and river values
- In the Recreational segment, promote restoration of vegetative productivity, such as by planting riparian species, thinning overly dense conifer stands, regenerating aspen, and controlling competing, non-native vegetation.
- In the Recreational segment, manage for natural regeneration of trees and shrubs whenever possible. If reforestation is necessary, use conifer seedlings grown from the local seed zone.
- When treating noxious weeds, utilize mechanical or biological methods rather than herbicides unless it is predicted that those methods will be ineffective and the long-term benefits of herbicide use outweigh potential short-term impacts to the river values and water quality.

#### Fire and Fuels

- Allow natural fires to burn in the Wild segment unless they threaten the long-term integrity of water quality and WSR values. High-intensity fire may burn in the Wild segment, allowing for vegetation type conversion within the natural range of variability.
- Limit fire suppression methods to those that will not have long-term adverse impacts to water quality and river values. In the Wild segment, aerial retardants should not be used unless deemed necessary to mitigate the threat of long-term impacts to water quality, river values, or human health and safety.
- In the Recreational segment, maintain low fuel loadings around developed and designated dispersed camping sites. Design vegetation and fuels management activities to minimize the risk of high-intensity fires, using methods that emphasize long-term protection of water quality and river values.

# Grazing

- In the Recreational segment, limit permitted horse grazing to the uplands above the Highway 63-fenceline.
- In the Wild segment, cattle grazing will adhere to the environmental protection standards for Management Area H-Wilderness, as well as utilization standards identified in Allotment Management Plans and Annual Operating Instructions.

#### IMPLEMENTATION PLAN

The Implementation Plan contains those actions considered technically, physically, and economically feasible that address specific issues, concerns or opportunities and would implement the management direction from the preferred alternative. These actions are considered possible or probable and most will require a site-specific NEPA analysis 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 projects 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.

Priorities were assigned based on the magnitude of the existing problem and the urgency to address the problem. The estimated implementation costs of possible actions were also considered since some actions require time to acquire funding. Often the Forest Service must find financial partners, such as another agency or organization, in order to secure funding.

The list of possible actions does not include every possible 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 be developed to protect and enhance the WSR values

Location	Problem	Management Standards & Guidelines	Possible Actions, Likely to be Proposed			
Scenery, Recreation, Ecology, Fisheries, Wildlife Values						
Scenery, Rec Dispersed campsites located from one- half mile north to one-half mile south of the confluence of the Mora and the Pecos in the recreation section	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.	No new developed campgrounds will be constructed, although, designated dispersed camping and parking areas are allowed.  In the recreational segment, from the Wilderness boundary to Willow Creek, prohibit camping outside developed sites. From Willow Creek to Terrero, prohibit camping outside developed or designated dispersed sites.  Provide sanitary and trash facilities where needed to avoid problems with human waste and trash, and replace facilities that do not meet current agency standards.	Allow dispersed camping on national forest land uplands between Terrero and Willow Creek.  Work with the NMG&F on the redesign the Mora Campground  Construct a developed campground at Links Tract, which is outside the corridor.  Prohibit dispersed camping in the Box Canyon reach.  Construct sanitary facilities at the confluence of the Pecos and the Mora Rivers.			
	This is particularly common at some dispersed campsites.	In the recreational segment, provide trails that incorporate Forest Service Trails Accessibility Guidelines to access the river for fishing and other uses.  Relocate or eliminate, and rehabilitate user-created trails that are causing adverse impacts to soil, water, fisheries, wildlife, or other resource values.  In the recreational segment, provide designated parking areas that access the river or trails, while protecting sensitive resources.	Remove toilet at Cowles Ponds and replace with CXT design near the Winsor Ridge trailhead.  Install a CXT toilet in the Terrero upland area.  Develop dispersed camping sites in Terrero upland area.  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.  Post notices that dispersed camping in the Cowles area will be prohibited.			
Cowles Ponds, Willow Creek, and Mora River	Fishing platforms are not universally-accessible, and there are not enough fishing platforms to meet the current demand.	Provide designated sites for fishing and parking that minimize resource impacts while emphasizing recreational fishing opportunities.	Re-design and re-construct the two existing fishing platforms at Cowles Ponds and build a third platform, all to be universally accessible.  Construct three universally accessible fishing platforms on the Pecos River at Willow Creek, north of the Mora, and north of the Cowles parking area.			

Location	Problem	Management Standards & Guidelines	Possible Actions, Likely to be Proposed		
Recreation, Parking, and Travel Management (Roads, Trails)					
Dispersed parking a re denuded of vegetation, have compacted soil, and cause erosion and sedimentation.	vegetation, have	areas that access the river or trails, while protecting sensitive resources.  Prohibit parking in undesignated locations where it poses a safety hazard along the road/highway shoulder, causes loss of vegetative site productivity or degrades river resources or values.  Prohibit parking outside designated areas, on or off the highway.	Re-design the parking facilities at the Winsor Ridge trailhead to accommodate $10 - 12$ vehicles and $6 - 10$ horse trailers and rigs.		
	cause erosion and		Recommend constructing a parking lot on state land at the proposed Mora trailhead with room for 5 – 10 vehicles.		
			Recommend constructing a parking lot on state land with 15 – 20 spaces on the Pecos north of the Mora River (where the gravel piles are now being stored).		
			Recommend constructing a series of day-use parking areas on state land with less than 10 spaces on the Pecos south of the Mora River.		
			Construct a parking lot with $8-10$ spaces in the Terrero upland area. Pave or gravel the road leading to this parking lot.		
			Post notices that parking outside of designated areas will be prohibited.		
Isolated areas cause erosion, sedimentation, and le of vegetation.	cause erosion, sedimentation, and loss	needed to direct use, reduce resource impacts and increase user satisfaction.	Construct a pedestrian bridge that parallels the current highway bridge over the Pecos River at Cowles.		
	of vegetation.		Construct a universally accessible pedestrian walkway at the Winsor Ridge trailhead that follows the Pecos River.		
			Construct a trailhead at the Mora Campground.		
			Constuct a universally accessible access trail along the Pecos River near the Mora.		
			Close those user-created trails in the Terrero upland area that are creating resource damage.		

Location	Problem	Management Standards & Guidelines	Possible Actions, Likely to be Proposed
Throughout the recreation section of the WSR corridor	Driving off roads compacts soil, crushes vegetation, and poses a safety hazard.	Prohibit driving off roads and trails on both State and National Forest lands.	Issue a closure order prohibiting driving off roads or trails.  Post notices that driving vehicles off the road will be prohibited.
Riparian / A	quatic		
Throughout the WSR corridor	Streambanks have been denuded, contributing to erosion and sedimentation	Stabilize stream banks that have been denuded and take measures to maintain long-term stream bank protection.  Prohibit the public from removing large woody debris from the river, as well as cutting snags (dead standing trees) within the corridor.	Improve barriers along the bank of Winsor Creek to protect riparian vegetation and water quality.  Re-vegetate the stream banks along the Willow Creek shelter and picnic area after the remediation of the Terrero Mine is complete.
Interpret	ation & Informati	on	
Throughout the recreation section of the WSR corridor	There is no centralized, effective means of communicating rules, regulations, and information to the public.	Provide information at strategic locations in the corridor, as well as through publications, to inform the public, including topics such as: alternative camping or off-road motorized use areas; hunting, fishing and picnicking opportunities; proper disposal of trash and human waste; animal control; wilderness ethics and other Leave No Trace techniques.	Construct kiosks on Highway 63 before Terrero, at Cowles Ponds, and at the Willow Creek shelter and day use area.  Construct an "entry portal" with a kiosk, an outhouse, a trashcan, and parking for 3 – 5 vehicles within ½ mile of Terrero.

## **MONITORING PLAN**

The Forest Service carries out different types of monitoring actions. The Forest Service will collect baseline data as needed to assess existing conditions. This is important in order to measure changes caused by projects. Implementation monitoring will be done to verify that a project was carried out as planned. Effectiveness monitoring will gauge whether or not the project met its goals. In other words, did the results and effects match expectations? Validation monitoring will identify whether there is a need to change the overall direction in planning or implementing projects. For example, validation monitoring may be applied at a broader scale to reexamine whether the management direction in the Pecos WSR Management Plan (and Forest Plan) is still relevant and appropriate.

Most of the possible/probable monitoring items listed in the following table will be evaluated and refined as needed during project-level planning and analysis. The following table lists the location; type of measurement, method, and frequency of monitoring that will most likely be used in the WSR corridor. Monitoring design is 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 not be feasible. The monitoring actions selected are those that address areas of highest concern, similar to items addressed in the implementation plan. District personnel will evaluate data periodically so that course corrections can be made as needed.

Location	Measurement	Method	Intent	Frequency
Heavily used dispersed	# of cars parking	Collect and record field	Monitor compliance with closed areas, post	During periods of
recreation sites: along the	outside designated	data	additional signs if problems with	peak use in 2003 &
Pecos at the confluence with	areas		compliance become chronic	2004 as baseline,
the Mora, and in the uplands				then every other year
at Terrero to Willow Creek				to measure change
(once designated)				and trend over time.

Location	Measurement	Method	Intent	Frequency
Developed sites: Cowles campground  Links Tract campground (once built)	# of cars and # of visitors	Compile and evaluate data collected on site	Monitoring of site use	During periods of peak use in 2003 & 2004 as baseline, then every other year to measure change and trend over time.  At end of season in 2006 and 2007 for baseline, then every 3-5 years to evaluate change and trend over time.
Developed Trailheads and Trail Use: at Winsor Ridge, Cowles, Jacks Creek, Panchuela, and Iron Gate trailheads	# of cars at trailhead, destination from trail log	Collect and record field data	Monitoring of trail use	Once or twice during peak use in 2003 & 2004 as baseline, then every 3-5 years to evaluate change and trend over time.
Pecos River	In-stream, stream bank, and riparian conditions using proper functioning condition survey protocol  Selected water quality parameters	Collect data through stream surveys, then compile and record data  NM Environment Dept samples water quality and records attainment status in 305b report	Monitoring of water quality, riparian. Take corrective action if problems are noted	Every 3-5 years to compare with 2002 baseline survey  Every 3-5 years to compare with 2000 baseline
User-created trails throughout the WSR corridor	In-stream, stream bank, and riparian conditions using proper functioning condition survey protocol	Collect data through stream surveys, then compile and record data	Monitoring effects of user created trails, Close additional trails if effects are noted	Once in 2003 for baseline, then every 3-5 years

Location	Measurement	Method	Intent	Frequency
Grazing use in key areas within the corridor (Wild Segment)	Utilization	Field inspection	Ensure that established use levels are not exceeded	Annually
	Stubble Height	Field inspection	Ensure sufficient residual forage to support bank stability	Periodically
	Range Condition Readiness	Field inspection	Ensure plants are not grazed in critical growing periods.	Annually
	Range Facilities	Field inspection, INFRA	Ensure fences are properly functioning	Annually
	Range Condition and Trend, Utilization records	Range analysis PU studies	Grazing capacity and trend – compare actual and planned outputs	Prior to 2008 NEPA process
	Permittee Compliance	Field inspection	Monitor compliance with annual operating instructions	Annually
Outfitter guides	Permit compliance, use numbers, and use patterns	Collect data from outfitter guide evaluation process	Monitoring trends and use patterns over time	Annually
Wildfire and fire use	Water quality, scenic integrity	Collect data from proper functioning condition surveys and water quality samples	Monitoring of fire effects, adaptive management	After a wildfire or prescribed fire, then once per year for two consecutive years
Throughout: camping restrictions, off-road driving, hunting compliance, illegal parking, and other	# of tickets and warning given	Review law enforcement logs	Monitoring of compliance, will recommend additional patrols if necessary	At least weekly during peak periods