Cache La Poudre
Wild & Scenic River
Final Management Plan

Poudre Falls
USDA Forest Service
Arapaho & Roosevelt National Forests
Fort Collins, Co 80526
CACHE LA Poudre Wild and Scenic River

Final Management Plan

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Estes-Poudre Ranger District
Larimer County, Colorado

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CACHE LA Poudre Wild and Scenic River Management Plan

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I. INTRODUCTION

A. PURPOSE

The purpose of this plan is to identify Forest Service actions needed to manage and protect the Cache La Poudre Wild and Scenic River and adjacent lands. This plan will be implemented over the next five to fifty years, as funding is available. Priority will be given to projects that protect the river, increase safety, and improve recreation activities. This plan will be reviewed periodically, and may be amended as needed, with additional public involvement.

B. LOCATION

The Cache La Poudre River is located east of the Continental Divide, in the northern Front Range of Colorado. It is affectionately known as the Poudre, by local residents and long time visitors to the area. The main and south forks of the Poudre originate in Rocky Mountain National Park, then flow north and east through the Roosevelt National Forest. The river eventually passes through the City of Fort Collins, then joins the South Platte River east of Greeley. The map on page 2 shows the general location.

Seventy-five miles of the Poudre are designated as part of the National Wild and Scenic Rivers System. Thirty miles are designated Wild and forty-five miles are designated Recreational. Wild Rivers are generally inaccessible except by trail. Recreational Rivers are generally accessible by road, with some diversion structures and development along the shoreline. The designated sections of the Poudre are entirely within Larimer County. The map on page 3 shows the Wild and Recreational segments.

Of the 75 miles of river designated, fourteen miles of Wild River are within Rocky Mountain National Park and administered by the National Park Service, U. S. Department of the Interior. Sixty-one miles are within Roosevelt National Forest and administered by the Forest Service, U. S. Department of Agriculture.

The Wild River segments start at Poudre Lake for the main stem and Icefield Pass for the South Fork, in Rocky Mountain National Park. They continue through Comanche Peak Wilderness and the Cache La Poudre Wilderness, with 16 miles of Wild River in Roosevelt National Forest. The Wild River segment on the main fork is known locally as the Big South, and is also designated the Peter H. Dominick Wild River Area. The South Fork of the Poudre is known locally as the Little South.

The Recreational River segments include thirty-eight miles of the main stem of the Poudre and seven miles of the South Fork. The Recreational segment on the main stem starts at the Comanche Peak Wilderness Boundary, upstream from the Big South trailhead, and continues downstream to the community of Poudre Park, eighteen miles northwest of Fort Collins. The Recreational segment of the South Fork (Little South) starts at the Comanche Peak Wilderness boundary, south of Pingree Park, and continues downstream to the north line of section 1, T7N, R73W, 6th PM, one fourth mile north of Fish Creek.
Administered By:
The U.S. Department of Agriculture Forest Service

And

The U.S. Department of Interior National Park Service

Location Map
ROOSEVELT NATIONAL FOREST

CACHE LA POUDRE WILD AND SCENIC RIVER
Administered by The Arapahoe & Roosevelt National Forest
& Rocky Mountain National Park

- Wild River-Roosevelt National Forest 16 Miles
- Recreational River 45 Miles
- Wild River-Rocky Mountain National Park 14 Miles

For Details Segments A - G, See Appendix.
The Wild and Recreational River designations include the river and all lands approximately 1/4 mile from the high water mark on each side of the river. The Forest Service is required to define a more exact legal boundary for this corridor on National Forest land. The legal boundary is shown on the maps in Appendix A. Larger maps and a narrative description of the boundary are available for review at the Estes-Poudre District Office.

The Recreational River boundary follows aliquot parts or subdivisions of sections, so it can be surveyed and located on the ground if necessary. The boundary includes important scenic features in the corridor to ensure their protection. Private and other public lands are included within the boundary. The rights of private landowners and other government jurisdictions are protected under the Wild and Scenic Rivers Act.

In remote, unsurveyed areas, the Wild River boundary follows a line 1/4 mile from each side of the river. For the Wild segment of the main stem of the Poudre, the downstream boundary was revised to end at the Comanche Peak Wilderness boundary, near Big South Trailhead.

C. LEGISLATIVE HISTORY

The Wild and Scenic Rivers Act of 1968 identified the Cache La Poudre for potential addition to the National Wild and Scenic Rivers system. An amendment to the Act in 1975, required the USDA Forest Service and the State of Colorado to conduct a study of the Poudre River for possible inclusion. According to Section 1 (b) of the Wild and Scenic Rivers Act: "...certain selected rivers of the Nation which, with their immediate environments, possess outstandingly remarkable scenic, recreation, geologic, fish and wildlife, historic, cultural, or other similar values, shall be preserved in free-flowing condition, and that they and their immediate environments shall be protected for the benefit and enjoyment of present and future generations."

The Cache La Poudre Final Environmental Impact Statement and Study Report (FEIS/SR) was completed in 1981. The study evaluated the Poudre River and determined that 83 miles were eligible for national designation, based on the descriptive factors quoted in the above paragraph. The Poudre received outstanding ratings for its: scenic value, recreational value, free-flowing character, meaningful experience opportunity, water volume, and water quality (USDA 1981, p. 42). An Addendum to the Final EIS and Study was completed in 1984, to further address the water resource development issues and alternatives. Both of these documents recommended national designation for the Poudre, but strong controversy still existed over which sections should be designated.

After the study was completed, leaders in the community, including members of environmental groups and representatives from water users associations, worked together to develop the legislative proposal for designation of the Poudre to the Wild and Scenic Rivers System. Months of tough negotiations were required to resolve the issues and reach a compromise that would preserve existing water rights, while preserving the beauty of the river. The bill that was proposed recommended Wild and Recreational designations for 75 miles of the Poudre, and made it clear that water development would be possible outside of the designated sections.
On October 30, 1986, seventy-five miles of the Poudre were designated as part of the National Wild and Scenic Rivers System, by Public Law 99-590. Thirty miles were designated Wild and 45 miles were designated Recreational. The 18-mile Wild segment of the main stem was also designated the Peter H. Dominick Wild River Area. This name is a tribute to Senator Dominick's love for the Colorado mountains and his key role in the legislation that called for a wild and scenic study of the Cache La Poudre River. A copy of the law is included in Appendix G.

Public Law 99-590 amends the Wild and Scenic Rivers Act and requires that a management plan be prepared by the Forest Service to address 61 miles of the designated river within the Roosevelt National Forest. The plan shall address resource protection, development of lands and facilities, user capacities, and other management practices to achieve the purposes of the Wild and Scenic Rivers Act. The fourteen miles of the Poudre within Rocky Mountain National Park are already addressed in an addendum to their General Master Plan.

The Arapaho and Roosevelt National Forests Land Management Plan (Forest Plan) was completed in 1984. The Forest Plan includes standards and guidelines that protected the Poudre River while it was being studied. It also provides direction for managing the river and adjacent lands after designation. The Cache La Poudre Wild and Scenic River Management Plan is an amendment to the Forest Plan, and provides more specific direction for management of the designated sections of the Poudre.

D. AREA DESCRIPTION

The Cache La Poudre River is an outstanding attraction for visitors and residents along Colorado's northern Front Range. Easily accessed by State Highway 14, the area is popular for scenic driving, camping, picnicking, fishing, rafting, kayaking, hiking, and bicycling. The scenery is spectacular, with vertical rock cliffs, large pine and cottonwood trees along the river, and sparkling clear waters.

Historical accounts trace the name for the Cache La Poudre River to early French trappers who were caught in a snow storm and buried their gunpowder in a cache near the mouth of the river. Most settlement of the area started in the 1870's and 1880's with mining and railroad building in northern Colorado. Trees were cut for railroad ties by "tie hackers" and then floated down the Poudre River. The attempted railroad up the Poudre Canyon was never completed, but many of the grades became the foundation for Highway 14. Early mining exploration had only marginal success as well, leaving ghost towns such as old Poudre City to tell the story.

The Wild and Recreational River corridor includes approximately 25,000 acres. National Forest lands are 67 percent and National Park lands are 18 percent of the area, for a total of 85 percent under federal administration. Of the remaining 15 percent, there are 1,650 acres of State land, 200 acres owned by the City of Fort Collins, and approximately 2,000 acres in private ownership. All landowners within the designated corridor retain their rights to control the use of their own property. Wild and Recreational River designations do not authorize trespass on private or other public lands.
Campgrounds and resorts on private land in the Poudre area provide over 200 full service RV hookups and cabins. More than 600 landowners are summer or year around residents of the Poudre Canyon and Pingree areas.

Forest Service developed recreation facilities include 11 campgrounds with a total of 172 sites for overnight camping. Four picnic areas are developed, providing a total of 41 sites with tables and barbeque grills. An additional group picnic area at Mountain Park can accommodate up to 150 people.

State Highway 14 and the Pingree Park Road (County Road 63E) provide year around access to most of the Recreational River. Four smaller roads that start within the designated corridor and provide motorized access to adjacent areas include: Stove Prairie Landing, Pingree Hill, Sevenmile Creek, and Wintersteen. Six parking areas and trails provide access to National Forest lands outside of the designated river corridor for hiking, bicycling and some horseback riding.

Since the 19th century, the Poudre River has been intensively managed for importation, storage, and conveyance of water. One of the earliest transmountain diversion structures in Colorado, the Grand Ditch, carries water from the headwaters of the Colorado River into the headwaters of the Poudre River. Additional diversion structures and small reservoirs were built in subsequent years in the upper reaches of the Poudre basin. Within the Recreational River corridor there is one low head diversion dam at the State Fish Hatchery. Nevertheless, most of the main stem and the South Fork of the Poudre have remained undammed above Poudre Park.

Currently, water quality is very high in the Poudre. Average river flows near Poudre Park range from a minimum of 15 cubic feet per second in winter to a mean annual peak flow of 2,500 cubic feet per second during spring runoff. The river channel varies from narrow canyons with rapidly flowing streams to U-shaped, glaciated canyons with meandering streams. Natural river flows are supplemented in late summer by releases from eight upstream reservoirs and eight diversion structures that import water from other river basins. These releases from upstream water projects have improved river flows for fisheries, recreation, and scenic quality, while meeting the needs of downstream users. The major downstream use of the water is for irrigation, while many non-consumptive uses are served along the way.

The designation of seventy-five miles of the Poudre as Colorado's first Wild and Scenic River was the result of long-standing efforts to strike a balance between conservation and water supply interests regarding the use and protection of this unique and valuable river. Part of the compromise was to ensure that the undesignated sections of the river could still be considered for future water development. The undesignated sections are below Poudre Park on the main stem, and near Rockwell Ranch on the South Fork.

The Poudre River has attracted rafters and kayakers since the 1950's. Rapids on the river are classified from I to VI under the International Whitewater Rating System, and vary greatly according to water levels. The rafting season generally occurs from May through August. Five commercial companies provide guided rafting and kayaking trips under Forest Service permit. Over 9,000 people were guided on commercial raft trips and 11 people were guided on kayak trips on all sections of the Poudre in 1989.
Second only to the South Platte for intensive fishing use, the Poudre River receives over 43,000 angler days. The Colorado Division of Wildlife defines an average angler day on the Poudre as 2 1/2 hours of actual time spent fishing. The river supports a fish population of rainbow, brown and brook trout, along with eleven non-game fish species. Low water flows in the fall and winter tend to limit the quality of the fisheries. The Division of Wildlife operates a trout rearing unit on the upper Poudre, and stocks approximately 50 miles of the river with 80,000 catchable sized rainbow trout each year. Another 20 miles of the Poudre are designated by the State as "Wild Trout Waters" and are not stocked.

Prior to the 1900's, greenback cutthroat trout were the only native salmonid (trout) species in the Poudre drainage. When non-native species such as brown and rainbow trout were introduced, the greenbacks could not compete as well and had almost disappeared. Now greenback cutthroat trout are a threatened species in Colorado, with only three native populations state-wide. One of these native populations can be found in the upper reaches of the South Fork of the Poudre (Little South). Efforts are on-going to try to re-establish greenbacks in other streams. Greenbacks have been re-introduced in several streams in the Poudre drainage, including: Black Hollow Creek, Williams Gulch, East and West Sheep Creek and May Creek drainages. These re-introduction sites are outside of the Wild and Recreational River corridor. Migration barriers prevent other fish species downstream from entering the re-introduction sites and competing with the greenbacks.

The river corridor provides excellent habitat for a variety of wildlife species including bighorn sheep, mule deer, elk, bear, mountain lion, golden eagles, peregrine falcons, osprey, and many other birds and small mammals. The most productive wildlife habitats are in riparian areas, which are along the banks of rivers and streams. The Cache La Poudre Final Environmental Impact Statement and Study Report identifies 265 species of birds, mammals, amphibians, and reptiles (USDA 1981). Many of these species occur in the vicinity of the riverbottom.

Soils along the river corridor are highly variable, due to the changes in elevation, vegetation and land form. They are generally shallow sandy loam to clay loam, rocky, relatively unstable, and have a high erosion potential.

The vegetation is diverse. South facing slopes are warmer and drier, and north facing slopes are cooler and more moist, with more abundant tree cover. On open slopes in the lower canyon, ground cover consists mostly of grasses, forbs, mountain mahogany, sagebrush, and bitterbrush. Tree species include ponderosa and lodgepole pine, cottonwoods, aspen, Rocky Mountain juniper, Douglas-fir, and spruce. Spruce budworm and Douglas-fir beetle infestations have left extensive areas of standing dead trees, predominantly on north facing slopes. Approximately 30 percent of these dead trees are within Wilderness areas adjacent to the Recreational River corridor.

Parts of four active grazing allotments are within the Wild and Recreational River corridor, with a total of 111 acres of useable range. A total of 20 animal months or the equivalent of 5 head of cattle for a 4-month grazing season is permitted. Steep terrain along much of the river corridor, and its dissection by Highway 14, tend to limit the amount of grazing use that can
occur. This small amount of historic grazing use is managed so that it does not impact the river within the designated corridor.

E. VISION FOR THE FUTURE

Implementation of the Management Plan for the Cache La Poudre Wild and Scenic River will protect the outstanding scenic features of the canyon and the existing free-flowing character of the river, while providing high quality recreation opportunities. Implementation will depend on the availability of funding.

THE RECREATIONAL RIVER

Within the Recreational River corridor, visitors driving along Highway 14 and the Pingree Park road will see recreation facilities and cabins in a spectacular natural setting. The scenic quality will be protected through cooperation with private landowners, county zoning, scenic easements, or land acquisition from willing sellers, to ensure that new developments maintain the natural beauty of the area.

Private land developments will continue to become more concentrated, alternating with areas that appear natural and undeveloped. Visitors will find services such as lodging, gas stations and stores, where they currently exist.

Over the long term, visitors and local businesses, will benefit from a moderate increase in campground sites, picnic areas and trails within and adjacent to the Recreational River corridor. These facilities will be constructed and maintained to high standards, and landscaped to complement the natural beauty of the area. The development of public and private facilities will be coordinated to provide a balanced variety of services to meet the needs of the public. Generally, Forest Service campgrounds will provide a more primitive camping experience, and private campgrounds will provide more amenities such as flush toilets, showers, and full service hookups. More facilities will be accessible to people with limited mobility.

Over time, the Forest Service campground capacity within the Recreational corridor will be increased by 50 percent to accommodate most of the people currently camping in undeveloped areas. This will be accomplished through the expansion of existing campgrounds, and the development of new campgrounds in areas already being impacted by camping use. Existing campgrounds will be landscaped with trees and shrubs, to improve their appearance. When new campgrounds are constructed, camping will only be allowed in designated campsites. As a result, more people will be served in campgrounds, with less congestion along the roads and less impact on the river. Eventually a fee will be charged at all campgrounds, to operate them more cost effectively.

A variety of trails will serve hiking, horseback riding and bicycling within and adjacent to the Recreational corridor. A paved road shoulder along most of Highway 14 will improve safety for driving and bicycling through the main Poudre Canyon. Some trails will follow side canyons which go above the river and offer scenic views of the area. Most trails will be located outside of the designated corridor, to prevent congestion and impacts on the river.
Highway operation and maintenance will emphasize the retention of parking areas for day use recreation, improve sight distance for access on and off the roadway, and maintain healthy roadside vegetation. More developed parking areas will allow limited day use without impacting the river. A few unsafe parking areas will be redesigned or obliterated. Visitors will find readable, standardized signs along the highway to improve safety and clearly identify recreation facilities.

Visitors will learn more about the river, its history, prehistory, geology, wildlife, fisheries, and recreation activities through a coordinated information program. There will be several places to stop and enjoy interpretive signs and nature trails along the corridor. With extensive volunteer work and donations, the historic Arrowhead Lodge may be renovated to provide interpretive displays and visitor information. Private business owners in the Canyon may voluntarily develop signs that are compatible with the overall theme along the river corridor.

Fishing, rafting and kayaking enthusiasts will find safer parking and public access along most of the Recreational River, with some easements across private land from willing landowners. With better facilities, signing, public information, and cooperative law enforcement, there will be fewer problems with trespass on private property. Rafting and kayaking will increase slightly in balance with other uses, through limits on group size, scheduled launch times, safer parking, and enforcement of use restrictions. Most of the rafting will continue to occur at higher water levels, with most of the quality fishing at lower water levels. If conflicts occur in the future, day use activities may be more regulated.

With the cooperation of government agencies, private land owners, and water users, some structures in the river channel such as low bridges, bridge pylons, fences and low-head dams, may eventually be modified or removed. This will be accomplished on a voluntary basis only, as existing structures deteriorate and need to be replaced. As a result, visitors may enjoy safer river recreation opportunities.

No new dams or other diversion structures will be built within the Wild and Recreational River corridor. Natural river flows will continue to be supplemented by the present complex of reservoirs and transbasin diversion structures, as the owners of the associated water rights continue to exercise their use of those rights. The Forest Service will continue to explore opportunities for cooperation with the owners of water rights so that when possible, releases for downstream consumptive uses can also be used to improve river flows for fisheries, recreation, and scenic quality. High water quality will be maintained.

Partnerships with government and private interests will provide additional money and volunteer labor to protect the river and improve recreation facilities. A "Poudre River Advisory Group" will be organized by the Forest Service to improve communication and cooperation between management agencies, area residents and special interests.

Opportunities for viewing, fishing and hunting wildlife, will be improved through greater cooperation with the State as well as partnerships with private
organizations. Efforts will focus on improving wildlife and fisheries habitat and providing a variety of recreation opportunities.

THE WILD RIVER

Visitors to the Wild sections of the Poudre will find opportunities for solitude and more primitive recreation. These river segments are within Wilderness areas and are accessible only by foot or horse. Trail users will be able to travel the entire length of the main stem of the Poudre, when the Big South Trail bridge is replaced. Only the most expert and adventurous kayakers will attempt to float the Wild sections of the Poudre.

Fishing along the Wild River segments will be for self-sustaining wild trout populations. Fishing regulations will be established by the Colorado Division of Wildlife to help maintain self-sustaining wild trout populations. Generally fish stocking will not occur, except in the case of re-establishing stable fish populations lost to natural or man-caused actions.

Camping within the Wild River corridor will occur only at designated campsites away from the river bank. There will be minimal signing along the Wild River segments, to maintain their natural appearance, with regulations explained in brochures and at trailheads. Developments, including trails and bridges, will provide for visitor safety and protection of the environment.
II. RECREATIONAL RIVER MANAGEMENT

This section briefly describes the current situation, goals and management direction for 45 miles of the Poudre River that are designated Recreational. The Recreational River designation includes 38 miles along the main stem of the Poudre and 7 miles along the South Fork (Little South).

The Poudre was determined eligible to the National Wild and Scenic River System, based on its existing free flowing character, outstanding scenic quality and outstanding recreational values. Forty-five miles were then classified as Recreational based on the following considerations: 1) Highway 14 and other roads parallel most of the river; 2) several low impoundments, diversion structures, and bridges exist in the river channel; 3) developments occur along most of the river bank; and 4) private and other government lands occur along many sections of the river.

Recreational Rivers are managed to be readily accessible by road, and to maintain developments that have occurred along the shoreline, and impoundments or diversions that have occurred in the past. The significant laws, Forest Plan standards and other guidelines for management of this area are listed in Appendix G.

A. RECREATION

Currently, high competition for all types of recreation activities is occurring on weekends throughout the summer along the Recreational River segments. These areas are easily accessed by Highway 14 and the Pingree Park Road. The river and adjacent lands provide a roaded natural recreation experience, with relatively high levels of development and high use in a spectacular natural setting. Total recreation use of National Forest land is approximately 350,000 recreation visitor days. A recreation visitor day (RVD) is defined as 12 hours of recreation use. This can be one person for 12 hours, 4 people for 3 hours each, or any other combination totaling 12 hours.

Private, State, and National Forest lands are providing campgrounds, picnic areas, and access to the Poudre River for recreation. More than 600 people own land within or near the Recreational River corridor. These people and their guests also use the river and adjacent National Forest lands for recreation.

The overall goal in recreation management for the Poudre is to maintain a balance of uses that have occurred historically, while reducing conflicts between users. The key issues relate to overnight camping, access to the river for fishing and kayaking, trespass on private land, and commercial rafting.

1. OVERNIGHT CAMPING

There are eleven campgrounds with 172 developed sites on National Forest land within the Recreational corridor. Of those, 60 sites are in small non-fee campgrounds. Each campsite is designed to serve a maximum of five people, for a total theoretical capacity of 860 people at one time. All of these developed sites are full on weekends throughout the summer, with many of the non-fee areas exceeding their design capacity. Total fees collected at campgrounds were $40,000 in 1989. Total camping use in campgrounds was over 70,000 recreation visitor days for the year.
An additional 150 dispersed camping spots are being used in undeveloped areas along the road and the river where there are no toilet facilities. This use within and adjacent to the Recreational corridor is estimated at 25,000 RVD's. Approximately 100 of these camping spots are consistently used on weekends, and accommodate most of the dispersed camping. This unmanaged dispersed camping is damaging trees and ground vegetation, eroding the river banks, impacting private and state lands, blocking access to the river for day use, and reducing water quality.

Campgrounds and resorts on private land in the Poudre area provide over 150 campsites and 50 cabins, serving an estimated 500 people at one time. These facilities are also filled to capacity throughout July and August.

The flat land area outside of the 100 year floodplain and suitable for developing new campgrounds is limited within the Recreational River corridor, though some expansion is possible.

The overall goal is to increase developed campsites on the National Forest, and reduce impacts on the river and adjacent lands caused by dispersed camping in undeveloped areas. Appendix B gives the current situation and specific recommendations for each campground.

1. Over the next five years, provide 100 additional campsites in Forest Service developed campgrounds to meet the demand for overnight camping.
   a. Expand existing campgrounds to provide additional campsites. Provide water and charge a fee at all campgrounds to make them more cost effective to operate.
   b. Construct fee campgrounds in areas that have been historically used for camping, such as Dutch George Flats and Jacks Gulch.
   c. Locate new campsites outside of the 100 year flood plain. Design facilities using the topography, existing vegetation, and planting additional vegetation, to blend facilities with the natural landscape.
   d. Design campsites to accommodate larger recreational vehicles as well as sites for tent camping and some walk in campsites.
   e. Protect and improve the vegetation in campgrounds and stabilize the stream banks, to minimize the impacts of high recreation use.
   f. Provide facilities for people with mobility limitations at all campgrounds, including some wheelchair access to the river.
   g. Eliminate the non-fee campgrounds along the shore of the South Fork of the Poudre, where use is causing unacceptable damage to vegetation and stream banks. Provide limited access to the river for fishing and picnicking, and revegetate the rest of the area.
   h. Provide at least two group camping areas away from the bank of the river to serve groups of 25 to 50 people. These areas may be less developed and may be reserved in advance.
   i. Encourage the development of trailer dump stations on private land. Maintain dump stations on National Forest land until other facilities are available to meet this need. If authorized, charge a fee to recover the high costs of pumping and hauling sewage wastes.
   j. Restrict all overnight camping to developed campgrounds within the Recreational corridor.
   k. Manage adjacent areas within 1/4 mile of Highway 14 and the Pingree Park Road to be consistent with management within the designated
corridor and consistent with the provisions of P.L. 99-590 and its legislative history.

1. Monitor camping use and impacts on the river. Cooperate with the Colorado State University College of Forestry and Recreation Department to implement the concept of limits of acceptable change in the Poudre area.

m. Evaluate the need for additional campgrounds after National Forest facilities in this plan are developed. Coordinate with existing and planned facilities on private, state and other federal lands.

n. If additional campgrounds are needed, minimize impacts on undisturbed areas next to the river. Potential sites include Dadd Gulch or other suitable areas on state or private lands acquired in the future. Involve the public prior to any decisions for further development.

2. PICNICKING, FISHING & RIVER ACCESS

Day use activities on the Poudre provide a total of 275,000 recreation visitor days each year, and 70 percent of all use on National Forest land within the Recreational River corridor. Day use activities include: picnicking, fishing, floating, wading, hiking, bicycling, horseback riding, bird watching, wildlife observation, hunting, photography, driving for pleasure, viewing scenery, rock climbing, and rappelling. Rafting, kayaking, and trails are addressed in more detail in other sections.

Four developed areas provide 41 picnic sites with a theoretical capacity of 5 people per site, or 205 people at one time. An additional group picnic area at Mountain Park has a large shelter, softball diamond and tables to serve up to 150 people at one time. Five other parking areas or "rest areas" have only a toilet facility. In past years, these areas were full of people camping on weekends and were not available for day use. With limited day use facilities and dispersed camping everywhere, many people going to the Poudre on a weekend day can not find places to stop and enjoy the river.

2. Improve management and access to the river for picnicking, fishing, floating, and other day use activities.
   a. Convert some small non-fee campgrounds and rest areas to picnic areas.
   b. Design picnic areas to serve a variety of activities, including picnicking, fishing, and floating, to allow year around use.
   c. Encourage cooperation between users within facility limitations. Restrict use, or separate users if conflicts occur in the future.
   d. Prohibit overnight camping in picnic areas and roadside parking areas to allow room for day use access to the river.
   e. Provide small day use parking areas adjacent to campgrounds, where possible, to serve historic access to the river for fishing and floating. Separate day use and overnight facilities by design, vegetative screening, and positive signing.
   f. Provide safe parking areas throughout the river corridor to serve current levels of day use recreation. Redesign or restrict use of areas that are unsafe. Pave and stripe the larger parking areas, where needed to manage use within recreation capacities.
   g. Prohibit open fires on National Forest land in the Recreational River corridor, except in campgrounds and designated campsites.
h. Enforce current regulations which prohibit the discharge of firearms within 100 feet of developed sites, roads, bodies of water, and other areas of concentrated public use.

i. Manage areas along Highway 14 and the Pingree Park road to be consistent with management within the Recreational River corridor. All management of areas outside of the designated corridor must comply with the provisions of P.L. 99-590 and its legislative history.

3. KAYAKING AND NON-COMMERCIAL RAFTING

No permit or fee is required for non-commercial or private kayaking and rafting. Use of the Poudre includes other types of non-commercial floating such as squirt boating, canoeing, tubing and body surfing. Non-commercial floating is increasing each year, and is estimated at 15 percent of total floating use, or about 1,500 people in 1989. Flat land and safe parking areas at key points along the river are limiting factors. There are also some difficult rapids and low bridges along the Poudre that require high levels of technical skill and experience.

3. Provide opportunities for kayaking and non-commercial rafting in balance with other uses, and consistent with the capacity of the river and adjacent lands.

a. Manage river recreation activities to minimize conflicts between users. Limit non-commercial river use based on the capacity of parking areas and other facilities for safe access to the river.

b. Improve river access and day use facilities downstream from the Narrows. Design facilities to serve a variety of activities.

c. Where campground areas were historically used for river access, provide small parking areas adjacent to campgrounds, or alternative areas nearby where possible.

d. Use the minimum amount of regulation necessary to protect the river and prevent conflicts. Avoid complex regulations that are confusing to the public and difficult to enforce.

e. Monitor use and impacts on the river to determine if more strict regulations are needed. Involve river users in developing management alternatives prior to decisions on restricting use.

f. Determine the feasibility and desirability of an annual kayaking and rafting event in early June.

g. Improve boating safety and enforcement of regulations through continued cooperation with the Colorado Division of Parks and Recreation and the Larimer County Sheriff's Department. Jointly define and manage safe areas for tubing.

h. Remove or reduce existing hazards in the river channel, such as old bridge pylons, metal debris, and low bridges, as funding and voluntary cooperative opportunities permit. Protect the rights of all owners and users of existing water diversion structures and bridges. Pursue opportunities to modify these structures, where possible and desired by all affected interests.

i. Work with Larimer County and the State of Colorado to sign existing hazards in the river channel. Cooperate to develop standards and controls to prevent future hazards to boating, such as low bridges, patio decking, fences and other obstructions in the river channel.
j. Manage the undesignated river sections consistent with management of the Recreational River, and consistent with the provisions of P.L. 99-590 and its legislative history.

4. COMMERCIAL RAFTING

The management of commercial rafting has been one of the most controversial issues in developing this plan. Factors considered in resolving this issue include: 1) rafting outfitters desire to maintain reasonable flexibility to serve the public and stay in business; 2) local residents are concerned about sanitation, traffic congestion and safety hazards along Highway 14; 3) some fishing conflicts have occurred in the Lower Poudre, and some people are concerned that increased rafting in the Upper Poudre could increase conflicts; 4) many people expressed fears that commercial rafting could take over and displace other historic uses.

Commercial rafting requires a special use permit from the Forest Service as well as a guide license from the Colorado Division of Parks and Recreation. Forest Service permits require limits on group size, facilities that can be used, and total use for each section of the river. There are 5 rafting outfitter guides permitted to use portions of the Poudre River. Two of these outfitters also offer guided kayaking, though little use has occurred so far. Overall, the existing outfitters provide excellent service to the public. They know the area and have many years of experience on the Poudre. Their prices are competitive, and have stayed fairly low for the past several years. In 1989, 5000 people enjoyed guided rafting on the Recreational section of the river. An additional 4000 rafted the undesignated section of river downstream from the community of Poudre Park. Eleven people were guided and received kayaking lessons on the Poudre in 1989.

Rafting outfitter guides on the Poudre serve a large volume of people within limited existing facilities. Their use of buses or vans reduces traffic along Highway 14, and takes less space for parking, though large turnaround areas for buses are limited. Some facilities are unsafe and are not adequately serving the guided public. The overall goal is to provide guided rafting for the public, within limits to reduce impacts on other river users.

4. Administer special use permits for guided rafting to provide quality service to the public within facility and other limitations.
   a. Designate put-in, take-out, and other use areas for each river outfitter, as part of their operating plan. Limit use such as: maximum group size, number of groups launched per area per day, launch times, and total service days, to prevent conflicts between users.
   b. Issue priority permits to the 5 current outfitters based on the average of their 2 highest years of use.
   c. The Forest Service may authorize additional temporary use for current outfitters, if capacity is available within the limits listed in 4a. above.
   d. Based on facility capacity limitations, do not permit new rafting outfitters.
   e. Encourage outfitters to cooperate with each other to provide facilities and better serve the public. Allow some flexibility in operations, to account for changes in water levels, customers arriving late, bad weather conditions, emergency situations, etc.
f. Outfitter use shall not exceed 50 percent of the space available at put-in, take-out, and parking areas on weekends, when most of the fishing and non-commercial floating occurs. This is a maximum of one outfitter at a time and/or 1 bus at a time for sites large enough to handle buses. Some sites are more restrictive.

g. Advertise additional capacity for 50 service days of guided kayaking, within current facility limitations.

h. Manage river use downstream from Poudre Park, to be consistent with management within the Recreational corridor. All management of areas outside of the designated corridor must comply with the provisions of P.L. 99-590 and the intent of its legislative history.

i. Monitor commercial use of the river to ensure that use restrictions and bank stabilization measures are effective.

5. TRAILS

Existing trails that start in the Recreational River corridor and access adjacent National Forest Lands, include: Hewlett Gulch, Young Gulch, Mount McConnel/Kreutzer, Dadd Gulch, Mineral Springs, Zimmerman, Roaring Creek, Big South, Emmaline Lake, and Stormy Peaks. Zimmerman and Mineral Springs trails start on private land, and there is no public right of way to access them from Highway 14. It may be possible to reroute these trails to avoid impacting private land. Grey Rock Trail is outside of the Recreational corridor.

Initial review was conducted on the potential for developing a trail along the river within the Recreational corridor. Most of this corridor currently receives very high use. Steep terrain and the absence of bridges across the river, make a trail infeasible in some places and extremely expensive in others. There are only a few places within the Recreational corridor where short sections of trails could be developed. Outside and adjacent to the Recreational corridor, trail opportunities are extensive.

5. Provide trails for hiking, bicycling, and horseback riding that improve non-motorized access to National Forest lands outside of the Recreational corridor, and offer scenic views of the river.

a. Locate a trail route for hiking, mountain biking, and horseback riding that generally parallels Highway 14 from east to west, and provides a potential link with Fort Collins, if possible. Locate most of this trail outside of the Recreational River corridor, and tie in with existing primitive roads, where use is compatible.

b. Cooperate with the State Highway Department to provide a paved road shoulder along Highway 14, to improve safety for motor vehicles as well as touring bicycles, where possible without impacting the river.

c. Provide some trails near campgrounds, to improve day use opportunities for campers.

d. Provide better trailhead signs, toilets, and parking areas to serve the use of existing trails. Provide larger parking areas to accommodate horse trailers for trails designed for horse use.

e. Continue to allow backpack camping associated with trail use. Locate campsites at least 1/4 mile from trailhead parking areas, as well as 100 feet from the trail and any streams. Any campsites that are authorized within the first 1/4 mile, will be designated by a camping symbol or sign.
f. Locate trailhead parking areas and potential trails to adjacent National Forest lands, considering esthetics, soil stability, and vegetative screening. Give priority to developing trails in the lower canyon, that provide a longer season of use. Avoid conflicts with critical big game winter range. Conduct further analysis and public involvement prior to new trail construction.

g. Minimize impacts on private land owners. Locate trails entirely away from private land if possible. Acquire trail easements or land from willing sellers if public access is needed, and private land cannot be avoided.

6. INFORMATION AND INTERPRETATION

It has been difficult for the public to get complete information on the Poudre River, with many local, state, and federal agencies having responsibilities within the corridor. By law, all agencies are required to coordinate with each other, but the task is complex. Each has different policies, budgets, time frames, priorities, and problems to manage. It has also been difficult to maintain communication and continuity over time, as personnel changes occur in the Forest Service and other agencies as well.

A small information site has been planned in the lower Poudre, as a cooperative effort by several agencies, including the Forest Service, Division of Wildlife, Division of Parks and Recreation, Larimer County Parks, and the State Highway Department.

There is one Forest Service interpretive site at Home Moraine Geologic Area, where a sign explains the most recent glacier activity that occurred approximately 15,000 years ago.

6. Provide information and interpretation to increase public understanding and appreciation of the unique values of the Poudre River corridor.
a. Continue to cooperate with other agencies to provide a small visitor information site near Upper Picnic Rock and one in the Cameron Pass area, outside of the designated river corridor. Provide a map and basic information on recreation opportunities and regulations, before people enter the area, in an effort to prevent problems.
b. Cooperate with Poudre residents, local Historical Societies, Rocky Mountain Nature Association, Colorado State University and other interested groups to stabilize or renovate Arrowhead Lodge if possible. If donated funds and volunteer labor are available to repair the Lodge to meet county codes, the building could potentially be used to provide interpretive exhibits, visitor information, a place to sell books and other educational materials, and a center for coordinating volunteer activities to implement the Wild & Scenic River Management Plan.
c. Implement a coordinated program for signs, bulletin boards, and interpretive displays with consistent design standards throughout the river corridor.
d. Require that signs along Highway 14 and the Pingree Park road meet State Highway Department standards for safety, readability, and consistency, with Forest Service input on color, wording and placement.
e. Provide parking areas, nature trails, interpretive signs, brochures, and information programs, to explain more about management and protection of the Wild and Scenic River.

f. Work with Colorado State University and other cooperators, in designing and implementing information and interpretation programs.

g. Increase Environmental Education in cooperation with schools in Larimer and Weld counties, with priority at the elementary school levels.

h. Improve communication and cooperation between agencies and other interests through a Poudre River Advisory Group.

B. CULTURAL RESOURCES

Cultural resources include the physical remains of past human existence and evidence of our interactions with the environment over time. Historic resources are those that are at least 50 years old. Prehistoric resources are those that predate the keeping of written records, generally over 200 years old.

The Poudre River was a major travel corridor for the American Indian, in prehistoric times. Archeological studies in the area began in the 1930's. These and subsequent studies indicate the presence of Paleo-Indian, Archaic, and Late Prehistoric material. In 1976, a partial investigation located 52 archeological sites, which were used as early as 11,000 years ago.

The area has a rich history as well. Several local residents have researched and compiled a wealth of information on the history of the area and its early settlers. Unfortunately, much of the physical evidence is disappearing with the impacts of recreation use and developments along the river corridor. The State Historic Preservation Office (SHPO) lists 12 historic sites in the vicinity of the Poudre River, including the Flowers Trail, Eggers Town Site, Old Poudre City, Home Moraine Geologic Site, the Laramie-Poudre Tunnel, and Poudre Falls. The significance of these sites has not been fully evaluated. Cultural resources that are determined to be significant are protected by several federal laws, including the 1906 Antiquities Act, the 1966 Historic Preservation Act, and the 1979 Archeological Resources Protection Act.

Archeological consultants prepared a detailed survey report and evaluation of the Arrowhead Lodge site. The State Historic Preservation Office reviewed the report and determined that Arrowhead Lodge is eligible for the National Register of Historic Places. The Lodge is considered significant based on its architectural characteristics and its role in the resort industry of the Poudre Canyon from 1936 to the early 1940's. Based on the State's recommendation, and strong support from the public, the Forest Service is cooperating with local residents to protect the Lodge and nominate it to the National Register.

1. Protect significant historic and prehistoric sites.
   a. Inventory cultural resources within the river corridor, with emphasis on National Forest lands that may be impacted by current or future projects.
   b. Cultural resources must be considered on all projects, including: removal of buildings; modification of existing structures such as historic buildings and bridges; reconstruction and construction of campgrounds, picnic grounds, trailheads, and parking areas; trail
relocation and construction; controlled burn areas; telephone and powerlines; mineral prospecting sites; and other ground disturbing activities.

c. Determine the significance of all sites located within the designated corridor. Protect all significant sites where feasible. Excavate, record, or relocate sites that can not be protected from current activities or proposed projects.

2. Increase public understanding and appreciation of cultural resources.
   a. Provide information about the history and prehistory of the area.
   b. Interpret sites that add to our understanding and appreciation of the area.

3. Cooperate with area resident, the State Historic Preservation Office, and the Rocky Mountain Nature Association to protect Arrowhead Lodge.
   a. Assist volunteers to nominate the Lodge to the National Register of Historic Places.
   b. Pursue opportunities for public donations, special grants, and volunteer assistance to stabilize the exterior of the Lodge in a manner which maintains its historic and architectural integrity and meets SHPO approval.
   c. If donated funds and volunteer labor are available, renovate the interior of the Lodge to meet state and county codes, and use as an interpretive and visitor information center during the summer.
   d. Evaluate the feasibility and desirability of using the area in back of the lodge as a small work center and temporary living quarters for Forest Service summer employees.

C. SCENIC QUALITY

The outstanding scenic quality of the Cache La Poudre River is one of the primary reasons for its national designation. The boundary of the designated river as shown in Appendix A, includes the area that can be seen from the river and main roads, to ensure its protection. In some areas, vegetation damage and soil erosion is occurring due to high recreation use along the banks of the river. Uncontrolled future development on public or private lands could also potentially impact the scenic quality of the area.

1. Manage recreation use to reduce impacts on the vegetation and improve the scenic quality of the river corridor.
   a. Control erosion and damage to vegetation by providing steps and hardened trails to access the river.
   b. Continue to use vegetation and rustic fences to protect meadows and control vehicle use.
   c. Increase signing and enforcement to prevent off road travel and damage to vegetation.
   d. Revegetate areas that have been disturbed by human activities.

2. Improve the landscaping and appearance of developments on public land.
   a. Plant trees or shrubs to improve existing campgrounds and picnic areas and provide variety and screening around buildings and other structures. Eliminate poison ivy and other plants that are a potential hazard to people in high use areas.
b. Locate new facilities outside of open meadows or screened by
vegetation from view of the river and roads where possible. Remove
unneeded buildings, storage areas, trash dumps, and other structures
that degrade the appearance of the river corridor.
c. Manage developments on public land consistent with the guidelines
recommended to the county in Appendix E for developments on private
land.

3. Cooperate with Larimer County and local land owners to maintain or improve
the rural character and appearance of developments on private land within
the designated corridor. Appendix E gives current county zoning and more
detailed guidelines for cooperation with Larimer County.
a. Current County zoning provides most of the protection needed to ensure
quality new developments on private land. County zoning and Forest
Service guidelines in Appendix E will have minimal effect on existing
developments that have "grandfather" status.
b. Forest Service recommendations in Appendix E that may affect new
subdivisions or commercial developments include: use of exterior
colors that blend with the natural environment; using materials that
fit the rustic character of the area; limiting commercial developments
generally to areas where they currently exist; locating structures
outside of open meadows, or screened by vegetation where possible; and
restricting industrial development that may adversely impact the river
or recreation values.
c. Continue to participate in the County's planning process, to provide
Forest Service review of proposed developments on private land.
d. Acquire scenic easements or land in fee title from willing sellers or
donors, where existing or new developments may negatively impact the
Wild and Scenic River.

D. VEGETATION

Over the past ten years, Douglas-fir trees have been damaged by spruce budworm
and bark beetles, killing 60 to 70 percent of these trees. Most of the dead
trees are on steep, north facing slopes, and the damage increases toward the
west end of the Poudre Canyon. The insect infestation is a natural, cyclical
process. It appears to be on a downward trend, with fewer trees being damaged.

1. Manage the vegetation to maintain or improve the scenic quality of the
river corridor.
a. Retain the existing visual quality within the corridor, by maintaining
green cover on forested slopes.
b. Manage individual trees and other vegetation in campgrounds and along
the river, to provide a variety of species of different ages and
sizes, and to maintain a healthy and attractive environment.
c. Cut trees on appropriate sites with slopes less than 40 percent, where
accessible by road or on foot, to increase the number of aspen,
increase fall colors, reduce insect and disease problems, remove dead
trees, and improve scenic quality. Identify mitigation measures
needed to control erosion and protect the area, and include in
contract specifications.
d. Appropriate sites for cutting are those on moderate slopes (less than
40 percent), away from private land, accessible by existing roads or
on foot, and where cutting can occur without impacting scenic quality or other recreation values.

e. On steep, forested slopes over 40 percent and inaccessible areas, the natural process of insect and disease infestation will take its course.

f. Stabilize and revegetate areas that have been disturbed to enhance the visual quality. Control noxious weeds such as thistle, leafy spurge, and poison ivy in problem areas.

g. Maintain open meadows in the foreground area.

h. Cooperate with the Colorado Department of Highways and Larimer County, to incorporate roadside vegetation management and visual controls.

E. ROADS

State Highway 14, west of Highway 287, follows the main fork of the Poudre River for 50 miles. Highway 14 is a major year-around travel route over Cameron Pass to Walden and North Park, receiving an average traffic count of 1600 vehicles per day in the Lower Canyon. An estimated average of 7 percent of the total traffic is by large trucks. Highway 14 is maintained by the Colorado Department of Highways (CDOH) under a state-wide Memorandum of Understanding with the Forest Service. The State Highway Patrol determined that the hauling of hazardous materials would not be authorized on Highway 14, with the exception of local deliveries of gasoline and heating fuels.

County road 63E goes from Highway 14 to Pingree Park, and follows the South Fork of the Poudre for about four miles. The Forest Service granted an easement to Larimer County in 1962 for operation and maintenance of the Pingree Park Road.

Historically, the Sevenmile Creek and Wintersteen Park (Kelly Flats) roads have provided motorized recreation since the early 1900's. Today they are used by four wheel drive vehicles (4WD's), all terrain vehicles (ATV's), trail bikes, mountain bikes, and occasional hikers. In addition to this, Sevenmile Creek receives heavy camping use on weekends along the road and the creek. Total use of these roads has been over 2,000 recreation visitor days per year.

1. Provide for a safe, moderate speed, scenic driving experience along the Recreational River corridor.

   a. Implement more detailed annual operating plans with the Colorado Department of Highways and Larimer County to address the special needs of Highway 14 and the Pingree Park road.

   b. Issue an easement to the Colorado Department of Highways for long term operation and maintenance of Highway 14, with provisions for management of lands within the easement.

   c. Maintain a low design speed to allow for a safe, scenic driving experience. Avoid road widening or realignment of the highway, except in areas of extreme safety hazard. Maintain and enforce existing 25-45 MPH speed limits and recommend lower speeds in areas with heavy roadside recreational activities.

   d. Prevent the encroachment of roads and other facilities into the river channel. Stabilize the roadsides to prevent undercutting of the road by the river.

   e. Maintain safe parking and pull-off areas to allow day use consistent with the recreation capacity of each segment of the river. Prevent
unplanned development or elimination of roadside parking. Provide safe pull-off areas to enhance opportunities for viewing scenery.

f. Designate locations where borrow and fill materials can be obtained and stored, and revegetate old sites. Agencies will jointly identify areas where soil and rock material can be placed to stabilize banks, improve road shoulders, fill washout problems, and control off road travel. Prohibit soil and rock waste disposal into the river.

g. Maintain roadside vegetation to protect the scenic quality of the river corridor. Prune vegetation, as needed to provide a safe viewing distance for motorists. Control noxious weeds such as thistle, leafy spurge, and poison ivy.

h. Implement signing standards for all agencies to encourage consistency, compatible color and design, readability, improve service to the public, and present a high quality image of the area.

2. Continue to provide opportunities for motorized vehicle use along the Sevenmile Creek and Wintersteen four wheel drive roads.
   a. Maintain water bars and other drainage on these roads to prevent erosion and other resource damage. Close small side roads that are causing damage and can't be effectively maintained. Use vegetation, rocks, other natural barriers, and signs to prevent motor vehicle travel off of designated roads.
   b. Clearly sign all designated roads and strictly enforce regulations prohibiting off road travel.
   c. Accommodate limited other uses along primitive roads where compatible, such as hiking, mountain biking, and horseback riding. Manage non-motorized use so that it does not conflict with motorized use of the roads.
   d. Improve parking areas and safety pull-offs, where needed to accommodate appropriate uses.

F. WATER

The Poudre River is one of the most intensively managed rivers in the region. The natural flows of the Wild and Scenic River are modified by eight transbasin diversions and releases from eight upstream reservoirs. Average river flows near Poudre Park range from a maximum of 2,500 cubic feet per second in late May to early June, to a minimum of 15 cubic feet or less from September to April. The river flows vary depending on the demands for water by downstream users. Water quantity and water rights issues are very complex and are explained in detail in the Cache La Poudre Final Environmental Impact Statement (1981) and Addendum (1984).

The Wild and Scenic Rivers Act authorizes the Forest Service to file for a reserved water right to protect the qualities for which the Poudre River was designated. Studies were conducted by the Forest Service in cooperation with CSU and the Rocky Mountain Station, to define the volume of stream flows needed to protect the scenic and recreational values for which the Poudre was designated. Based on these studies, the Forest Service will meet with water users to discuss the quantities needed and to ensure their rights are protected. Then the Forest Service will file for reserved water rights for the Wild and Scenic River. A summary of the studies is included in Appendix C.
1. Maintain or improve water quality.
   a. Manage recreation use along the river banks to minimize erosion and limit sedimentation of the river within acceptable rates.
   b. Restore vegetation and improve soil stability along the river banks where needed, with emphasis on existing campgrounds and high day use areas. Use rustic materials that fit the natural environment.
   c. Provide toilets to accommodate concentrated recreation use. Prohibit overnight camping where no toilet facilities exist.
   d. Cooperate with Larimer County to monitor and eliminate potential sources of water pollution from activities occurring on private and National Forest land. Potential sources of pollution include: leachfields, septic tanks, toilets without a sealed vault, trash dump areas, underground fuel tanks, and the draining of recreation vehicle holding tanks on the ground.
   e. Construct new developments outside of the 100 year floodplain, to prevent water pollution and minimize future damage to the river channel and structures.
   f. Conduct all National Forest management activities within the river corridor and adjacent areas to maintain soil stability and minimize erosion and siltation of the river. Potential sources of erosion include: roads, trails, wildfires, tree cutting, grazing, mining, reservoirs, and recreation use.
   g. Cooperate with other agencies that are monitoring the Poudre River, to obtain information on turbidity, bacterial count, as well as aquatic insect monitoring as an indication of water quality.

2. Maintain the quantity of water needed in the river to protect the scenic and recreational values for which it was designated.
   a. Define the maximum, minimum, and optimum range of water flows needed to meet the goals of Recreational River designation. Consider the quantity and timing of flows as affected by releases from upstream reservoirs for downstream uses.
   b. Cooperate with water users to maintain desirable stream flows year around without impacting their rights.

3. Prevent future encroachment on the waterway by cuts, fills, bridges, and other structures.
   a. Coordinate with county, state and federal agencies that regulate new construction and modification of the river channel to prevent adverse impacts.
   b. Work with the state and county road departments to stabilize the river banks and prevent the encroachment of roads into the river channel.

4. Ensure that Wild and Scenic River designation of the Poudre is not used in any federal proceeding as a basis to prohibit potential water developments downstream from Poudre Park.
   a. Legislation provided that Highway 14 could be relocated to provide access to Poudre Park around water developments.
   b. Due consideration shall be given to reasonable measures for minimizing the impact of such facilities and road relocation on the designated segments.
   c. Congress determined that development of water impoundments, diversion facilities, and hydroelectric power and transmission facilities located entirely downstream of the designated portions of the Poudre
River below Poudre Park is not incompatible with the designated portions of the Poudre River.

d. Management of the undesignated sections of the Poudre will not interfere or be used to preclude future water development or hydroelectric power and transmission activities below the designated corridor.

e. If a water or power development proposal is received, the Forest Service will work with proponents to determine reasonable measures which will minimize the impacts of potential future development on the designated river.

G. FISHERIES

The Colorado Division of Wildlife has established special fishing regulations for two five-mile sections of the main stem of the Recreational River. These sections are designated by the State as "Wild Trout Waters". These Wild Trout Water segments are not stocked and regulations require the use of artificial flies and lures only. In addition, the bag limit is two fish over 16 inches in length. All fish under 16 inches in length must be returned to the water.

Each year approximately 80,000 catchable size rainbow trout are stocked in the remaining sections of the river. Of the fish stocked, about 90 percent are caught and kept. Total fishing use on the Recreational River is estimated by the Division of Wildlife at 40,000 angler days (2 1/2 hour days). The Division has conducted surveys in the past to determine that rafting use generally does not conflict with fishing use during higher water levels. At lower water levels in late July and August, conflicts are starting to increase in the lower part of the canyon, downstream from the Recreational River designation.

1. Maintain or improve the fisheries habitat within the Recreational River corridor.

   a. In conjunction with the Division of Wildlife, increase cooperative efforts with water users, to provide river flows which will optimize the level of fish production and productivity consistent with management objectives, without impacting the use of existing water rights, including conditional water rights. This includes winter flows, timing, and amounts of releases from reservoirs in the Poudre River drainage, and any expected changes caused by new water developments that would affect the Poudre River. Consider water flows needed for fisheries in overall flow recommendations.

   b. Modify the stream to create holding or resting cover for fish along heavily used portions of the Poudre, to better distribute stocked fish. Identify fisheries habitat which is below potential. Plan and execute improvement projects to reach desired condition as directed.

   c. Coordinate recreation development, including parking areas for fishing, with the type of fishing opportunity desired. Less developed sections of river should coincide with State designated Wild Trout Waters. In these areas, Division of Wildlife regulations will be designed to maintain natural self-sustaining fish populations.

   d. Hatchery-raised fish will continue to be stocked by the Division of Wildlife for put-and-take opportunities near campgrounds and day use areas outside of the Wild Trout Waters. The Division also stocks the river along some private lands where public fishing is allowed by the owners.
e. Expand fishing opportunities and improve access to the river for those with physical limitations.

H. WILDLIFE

The riparian area along the Poudre River is a productive wildlife habitat. Many species of mammals, birds, reptiles, and amphibians occur in the vicinity of the river bottom. Noteable species that are most popular for viewing are deer, elk, osprey, and bighorn sheep.

Bighorn sheep, an important attraction to visitors in the canyon, comprise an upper and lower herd divided by the Elkhorn Creek drainage. The lower herd resulted from transplanting 15 sheep from the upper herd into the lower canyon in 1975. Current estimates for the lower herd are that approximately 100 sheep exist with an upward trend in population. The upper herd is currently estimated at 100 sheep. The upper herd suffered a major dieoff between 1983 and 1985. In response to this decline, the Forest Service and Colorado Division of Wildlife have initiated controlled burning as a method to improve habitat and distribute bighorn over a wider area. The State has determined that the Poudre Canyon can support at least 300 sheep total for the two herds.

Colorado's northernmost peregrine falcon eyrie (nest) has been active in the Poudre Canyon during the years 1983 to 1987. The failure of one adult to return to this site in 1988 jeopardizes future recovery efforts in the Poudre Canyon for this very important endangered species. Severe eggshell thinning found in the Poudre Canyon prompted Colorado Division of Wildlife to use the fostering technique in past years to enhance hatching success.

Osprey have been sighted along the Poudre River corridor, though no nests have been observed. Fort Collins "Operation Osprey" group has plans to build artificial nesting platforms and foster young along the Poudre River within the City of Fort Collins, and are considering other areas further up the river.

1. Increase numbers, improve habitat, and develop viewing areas for bighorn sheep, elk, and deer.
   a. Use fire with a series of controlled burns to improve forage quality, increase habitat capacity, improve distribution and improve horizontal visibility. Fire reduces the number of shrubs and trees to make the sheep feel more secure from predation. Burn 200 to 300 acres per year for the next five years, in the upper and lower canyon. Where fire is not effective in reducing trees, cutting may be used.
   b. Seed areas with highly palatable forage species to attract big game species within viewing distance of roadside parking areas for wildlife observation and photography. Locate areas to attract wildlife a safe distance away from the road. Seed and fertilize from 5 to 8 acres per year. Maintain safe parking areas in wildlife viewing zones.
   c. Modify Forest Service fences where needed to provide safe travel routes for big game.

2. Maintain or improve riparian vegetation along the river.
   a. Conduct a riparian inventory of the river corridor to identify ecological and habitat conditions.
b. Define current and desired ecological condition for each area within the corridor. Rehabilitate or manage riparian habitat to maintain good ecological and habitat conditions.

3. Coordinate with the Colorado Division of Wildlife (DOW) to ensure their long range management plans are compatible with management direction established for the Wild and Scenic River.
   a. Coordinate with the DOW to ensure that hunting regulations are consistent with river corridor objectives.
   b. Review fishing regulations, with emphasis on special fishing area designations, such as wild trout waters, to ensure compatible recreation uses along the river.
   c. Identify needed fishing access along the river and develop a list of priorities. Acquire land or easements from willing sellers or donors, according to priorities.

4. Maintain a nesting peregrine falcon population in the Poudre Canyon area.
   a. Continue ornithological observations in the Poudre Canyon to determine if peregrine falcons are nesting.
   b. If no birds are found, develop a cooperative recovery plan with the Colorado Division of Wildlife and U.S. Fish and Wildlife Service to reintroduce peregrine falcons to the area during 1990.

5. Coordinate with DOW and Operation Osprey to develop nesting platforms in the Recreational River corridor to help establish a breeding population of osprey along the entire Poudre River.

I. FIRE

The Poudre River corridor has suffered from insect infestation, leaving large areas of dead Douglas-fir and some ponderosa pine, primarily on north facing slopes. Some of the stands have an under-story of seedling/sapling sized regeneration, which, with the high volume of dead wood, make a potentially dangerous continuous fuelbed. Most of the area is steep and unroaded, which makes access difficult for fire suppression. Much of the area is adjacent to developed private land, which makes fire prevention important and more complex.

Historically, most of the fires in the Poudre Canyon have occurred on the more barren, south facing slopes, where their spread can be more effectively controlled.

1. Reduce the hazards associated with fires, to protect developments on public and private lands.
   a. Cooperate with the State Forest Service to provide fire prevention information, to increase awareness and encourage private landowners to reduce the threat of wildfires to their homes.
   b. Remove dead and downed trees that are accessible, through small commercial sales or private use permits.
   c. Locate and develop areas for helispots, and establish fuel breaks at key locations.
   d. Increase cooperative efforts with Volunteer Fire Departments and other agencies.
2. When wildfires occur, use modified suppression techniques, where possible, to reduce hazards to fire fighting crews, reduce costs, and minimize the damage to natural resources.
   a. Apply control strategies during initial attack in all areas during the established fire season (May 15 to October 30). Control all fires adjacent to campgrounds, improvements, and private land year round.
   b. Apply contain strategies to areas where cost savings can readily be achieved, and to steep, inaccessible areas outside of regular fire season, (November 1 to May 14).
   c. Protect potentially sensitive areas, such as existing and potential prehistoric sites, from the impacts of fire suppression activities.

3. Use prescribed burning under controlled conditions to reduce the hazards associated with wildfires.
   a. Parts of the north rim of the Poudre Canyon have been identified as desirable areas to burn for wildlife habitat improvement.
   b. Wildfires that occur in this area that are within the prescription limits, may be managed as a prescribed natural fire.

J. OTHER LAND USES

Special uses on National Forest land in the river corridor include 25 recreation residences, 3 isolated cabins, 3 bridges, 3 wells, 1 spring, 2 pastures, a road, a State Highway Department maintenance site, powerlines and telephone lines. There are additional roads that cross National Forest land that are being used as access to private land. Some of these roads may be providing the only feasible access available, but they are not authorized by an easement which permits private use of National Forest land. Other private roads are illegally using National Forest land, when other access is available across private land. These illegal private roads are required to be closed and revegetated. The following are goals and objectives relating to special uses, land ownership and minerals.

Most of the river corridor has low mineral potential, with a few areas having moderate potential. There are currently 52 mining claims within one mile of the Recreational River.

1. Prevent public trespass on private land and private trespass on public land.
   a. Cooperate with local landowners and the County Sheriff's Department to prevent trespass and vandalism on public and private lands. Locate and sign the National Forest boundaries where problems exist.
   b. Over the long term acquire land in fee title or easements from willing sellers where public access is desired for fishing, rafting, kayaking, and other recreation activities.
   c. Give priority to acquiring undeveloped land where development would clearly adversely affect the scenic element of the recreation experience.
   d. Increase Forest Service law enforcement coverage and cooperation with the County Sheriff's Department, to serve the increased public use in the Poudre area.
   e. Use partnerships with The Nature Conservancy, Trust for Public Lands, Division of Wildlife and other interested groups to facilitate land acquisition.
2. Continue to cooperate with the State and the Bureau of Land Management, to implement standards and guidelines for prospecting, mining, and reclamation on all lands to prevent pollution and protect scenic quality over the long term.
   a. Review existing mineral withdrawals within the corridor and revise or update as needed.
   b. Withdraw additional federal lands from mining and mineral leasing in the river corridor, where these activities would conflict with scenic and recreational values, such as in riparian areas or newly developed facilities.
   c. Require strict adherence to federal mining regulations in 36 CFR 228.
   d. Prohibit sand and gravel mining on National Forest lands within the river corridor.
   e. Cooperate with the state and county to ensure that scenic quality is considered in reviewing sand and gravel and other common variety mineral extraction on private lands within the designated corridor.
   f. Continue to emphasize visual screening, locate access roads for minimum impact, and require bonding and reclamation to ensure site restoration.

3. Administer permits for existing private Recreation Residences and Isolated Cabins on National Forest land.
   a. Implement new regulations for recreation residences and isolated cabins when national policy issues are resolved.
   b. Require the use of colors which blend with the natural environment, and vegetative screening, for new buildings and other improvements that can be seen from the road or river.
   c. Limit additional improvements to essential uses.
   d. Acquire recreation residences that are surrounded by extensive areas of undeveloped land, if money is available and the owner is willing. Evaluate the historic significance of acquired structures, and mitigate any impacts prior to their removal.

4. Require adherence to existing standards and guidelines for special use roads and trails within the corridor, to protect scenic quality and minimize erosion.
   a. Locate private roads on private land where possible. Require closure and revegetation of unauthorized private roads.
   b. If National Forest land is needed to provide the only feasible access to private land, issue a road easement to authorize this use.
   c. Cooperate with local land owners, the County, and State Highway Department to minimize the number of new bridges needed to access private land.

5. Continue to require that new or upgraded telephone lines and powerlines under 33KV be buried, where physically possible, to protect important scenic areas.
   a. Protect existing trees and shrubs, and revegetate all disturbed areas.
   b. When lines cannot be buried, locate away from the river and roads, where possible. Co-locate utilities and minimize stream and road crossings.
III. WILD RIVER MANAGEMENT

This section briefly describes the current situation, goals and management direction for 16 miles of the Poudre River in the Roosevelt National Forest that are designated Wild. Wild Rivers are managed to be free of impoundments and generally inaccessible except by trail, with watersheds or shorelines essentially primitive and water unpolluted. This management direction leads to the summary of projects listed in section IV and the specific projects in Appendix B. The significant laws, Forest Plan standards and other guidelines for management of this area are listed in Appendix G.

The main fork of the Poudre River was designated Wild starting at Poudre Lake in Rocky Mountain National Park, then flowing through the Comanche Peak Wilderness in the Roosevelt National Forest, to its confluence with Joe Wright Creek. This management plan changes the lower boundary of this Wild segment to end at the Wilderness boundary, as shown in Appendix A. This change allows more consistent management of the Wild River segments, by including only the sections of river that are within National Park or Wilderness Areas. It is more consistent to include Highway 14, Big South Trailhead, and Big South Campground within the Recreational River designation.

The 18 mile segment of the main stem of the Poudre is designated the Peter H. Dominick Wild River Area, in honor of the late senator. A foot and horse trail parallels the entire length of river, except near Peterson Lake, where the Big South Trail Bridge and portions of the trail washed out in 1983. The trail is starting to receive more use by people wanting to walk the entire length of this Wild River segment.

The Wild River boundary for the main stem of the Poudre was revised to allow more consistent management. In the original designation, Public Law 99-590, this segment started at Poudre Lake and ended at the confluence of the main fork and Joe Wright Creek. This downstream end point included Highway 14, Big South Campground, and Big South Trailhead as part of the Wild River. These facilities can be managed more consistently as part of the Recreational River. For this reason, the downstream end of the Wild segment and the start of the Recreational segment were changed to coincide with the Comanche Peak Wilderness boundary, south of Big South Trailhead.

The South Fork of the Poudre (Little South) is designated Wild, starting at Icefield Pass in Rocky Mountain National Park, then through the Comanche Peak Wilderness in Roosevelt National Forest. Another Wild segment is the South Fork within the Cache La Poudre Wilderness. There are no developed trails along any of the Wild River segments of the South Fork. The area within Cache La Poudre Wilderness is classified as primitive recreation, while the other segment is in a semi-primitive area. The primary use of the South Fork is for fishing. The following are goals and objectives to manage and protect the Wild River segments.

A. RECREATION

Fishing is one of the primary recreation activities within the Wild River corridor. The Division of Wildlife estimates that over 2,000 angler days (2 1/2 hour days) of fishing are occurring along the Wild River sections. Most of this use occurs within one mile of the parking areas or vehicle access points.
Other activities include hiking, horseback riding, and camping. Heavy impacts have occurred due to camping and fires along the edge of the river bank adjacent to the Big South Trail.

1. Maintain and improve opportunities for hiking and horseback riding within the Peter H. Dominick Wild River Area, consistent with Comanche Peak Wilderness objectives.
   a. Maintain or reconstruct existing trails according to the standards for hiking and horseback use in Wilderness areas. Relocate existing trails where needed to reduce erosion or improve the overall trail system.
   b. Replace the Big South Trail Bridge, with provisions for relocating the Peterson Lake parking area at least 1/2 mile from the bridge site, to reduce the amount of use on that part of the river.
   c. Locate trailheads, parking areas, and signs, to effectively distribute use consistent with the capacity of the area.
   d. Where no Forest Service trails exist along the Wild segments of the South Fork, do not construct new trails or trailheads.
   e. Recommend that trails be developed in non-wilderness areas, where opportunities exist to take pressure off of the Wild River segments.

2. Provide for day use and overnight camping, consistent with the physical, ecological, and social capacity of the area.
   a. Implement standards for use to provide opportunities for solitude and semi-primitive recreation, and prevent adverse impacts on the environment.
   b. Limit camping and fires to designated sites.
   c. Monitor the quantity of use and limits of acceptable change on the environment. Cooperate with Colorado State University, Wilderness Management and Recreation Departments.
   d. Limit use with permit systems or other means if necessary.
   e. Enforce regulations that protect the social experience and environmental quality.

B. WATER

Water quality is very high within all of the Wild River segments. Natural stream flows are supplemented by imported water from the Grand Ditch into the main stem. Flows are affected by releases from upstream reservoirs, including Long Draw and Peterson Lake on the main stem, and Twin Lakes, Comanche, and Hourglass reservoirs on the South Fork.

1. Maintain or improve water quality.
   a. Prohibit camping, fires, and human waste disposal within 100 feet of lakes and streams. Enforce these regulations.
   b. Repair stream bank erosion caused by recreation and other human activities, and manage to prevent future occurrences.
   c. Close, revegetate and control erosion on degraded campsites.
   d. Improve erosion control on trails and at stream crossings.
   e. Maintain the desired ecological condition for each area within the river corridor.
   f. Monitor recreation impacts and cattle grazing within the corridor to maintain the vegetation in a healthy ecological condition.
2. Maintain the quantity of water needed in the river to protect the scenic and recreational values for which the area was designated.
   a. Define the range of minimum and maximum water flows needed to meet the goals of Wild River designation.
   b. Cooperate with other water users to ensure the protection of their rights while maintaining adequate stream flows.

C. WILDLIFE AND FISHERIES

1. Maintain the habitat for wildlife consistent with other Wilderness and Wild River objectives.
   a. Restore riparian habitat that has been damaged by human activities, where possible, within budget constraints and wilderness regulations.
   b. Prevent adverse impacts from activities that occur outside of the wilderness.
   c. Coordinate with the Division of Wildlife to ensure that hunting and fishing regulations are compatible with other Wild River objectives.

2. Maintain fisheries habitat and self-sustaining wild trout populations.
   a. Cooperate with the DOW to evaluate the South Fork (Little South) to see if it will meet their biomass and reproduction requirements to qualify for state "Wild Trout Water" designation. Recommend Wild Trout Water designation for all Wild River segments that meet the State's criteria.
   b. Recommend restoring some of the Wild Trout Waters to greenback cutthroat trout, a threatened species, where feasible and desirable by the Forest Service, Fish and Wildlife Service, and Colorado Division of Wildlife.
   c. Coordinate with the National Park Service on fishing regulations and possible re-introduction of greenback cutthroat.

D. FIRE, INSECTS AND DISEASE

1. Allow natural ecological processes to occur with a minimum of human interference.
   a. Implement a fire plan to allow modified suppression techniques to be used, to reduce costs and the impact of fire suppression activities on other wilderness resources.
   b. Apply confine strategies only to wilderness areas after a fire has escaped initial attack, and only if cost savings can be recognized.
   c. Allow natural insect and disease infestations to take their course.

E. OTHER LAND USES

1. Protect all Wild River segments from the impacts of other land uses, in accordance with the Wild and Scenic Rivers Act.
   a. Maintain withdrawals from mineral exploration.
   b. Prohibit any new water diversion or development proposal within the designated area that could impact the Wild River.
   c. Restrict new special uses so they do not impact the Wild Rivers.
IV. SUMMARY OF PROJECTS AND COSTS

The following is a summary of projects, estimated costs and priorities. Projects are numbered (1-17) and lettered (a-h) in relative order of priority for each resource category. All cost estimates include Forest Service overhead and specialist work, and contracts. Estimates for large capital investment projects, such as campground expansion, generally include: environmental documentation, cultural resource surveys, design plans and specifications, contract preparation and administration, reconstruction of existing campground, construction of new campground, paving roads, stream bank stabilization, revegetation, trail construction, signs and interpretation.

Many of the projects are planned for completion within the next 3 to 10 years. Priority is given to projects that protect the river and adjacent lands, improve safety, and reduce conflicts between users. Some projects, such as opportunities for bridge replacement and land acquisition, are part of the long term plan of 50 years or more.

Implementation of projects is based on the availability of funding. For large projects, a special Capital Investment Project fund is available in addition to the money for annual operation and maintenance. Many projects are good opportunities for partnerships and cooperative efforts, which reduce the actual cost to the government. The Forest Service will make every effort to attract other dollars and volunteer assistance to accomplish more work for the money invested.

Public Law 99-590, Section 101, states that "there are authorized to be appropriated $500,000 for development and $2,500,000 for land acquisition."

Appendix B gives a more detailed list of projects and recommendations for each recreation facility and each section of the river.

A. RECREATION

1. Perform cultural resource surveys, reports, evaluations, protection, and/or mitigation measures prior to all ground disturbing activities. Est. $18,000.

2. Construct new campgrounds and relocate some existing ones to reduce the impacts of camping along the river banks. a) Dutch George Flats $430,000, b) Jacks Gulch area $800,000, c) Tom Bennett $450,000. Est. $1,680,000 Total. If more campgrounds are needed: d) other sites on acquired land, e) Dadd Gulch.

3. Renovate, upgrade, and expand existing campgrounds and improve their accessibility for people with physical limitations. a) Narrows $306,000, b) Stove Prairie $170,000, c) Kelly Flats $670,000, d) Sleeping Elephant $400,000, e) Big Bend $250,000. Est. $1,800,000 total.

4. Improve parking and day use facilities for picnicking, fishing, and river access. a) Stevens Gulch $125,000, b) Upper Landing $85,000, c) Narrows $100,000, d) Century Park (Costs in Fisheries section), e) Big Bend $50,000, f) Young Gulch $100,000, and g) Hombres $100,000. Est. $560,000 total.
5. Construct 2 small visitor information sites outside of the designated corridor, with maps, information, and regulations: a) in the lower canyon, across from Upper Picnic Rock, and b) Cameron Pass area. Est. $100,000 each.

6. Use rustic fences, trees and shrubs, rock barriers, and increased signing to prevent off road vehicle travel. Est. $10,000 per year for 3 years.

7. Increase law enforcement and operation and maintenance of facilities in the Poudre Canyon and Pingree Park areas. Est. $10,000 per year.

8. Issue priority permits to existing river outfitter guides. Advertise limited capacity for guided kayaking. Issue temporary permit to new kayaking outfitters with limits on service days, launches, areas used, and group size. Est. $3,000.

9. Administer permits and monitor commercial and non-commercial river use to determine the need for additional facilities and different restrictions, as the situation changes. Est. $4,500 per year.

10. Determine the feasibility and desirability for annual kayak races, and issue recreation event permit, if approved. Est. $1,500.

11. Construct and reconstruct trailhead parking areas and trails that start in the river corridor and extend into adjacent National Forest lands. a) Eggers, b) Dadd Gulch, c) Young Gulch, d) Mineral Springs relocation, e) Zimmerman relocation, f) Elkhorn Creek. Est. 6 trailheads at $60,000 each, 12 miles of trail at $12,000 per mile, $500,000 Total. Additional trailheads may be added after further study.

12. Work with volunteers to nominate Arrowhead Lodge to the National Register of Historic Places. Cooperate with the Rocky Mountain Nature Association and other interests to accept donations and volunteer work to renovate the Lodge if possible. Prepare an annual operating plan to clarify financing and work priorities. Est. $5,000.

13. Conduct further analysis of alternative locations for a Forest Service work center and temporary housing area, including a) the area behind Arrowhead Lodge, b) Dadd Gulch, c) Eggers, d) Other sites? Est. $2,000

14. Based on analysis above, construct a small work center to operate and maintain the facilities in the Canyon and improve service to the public. Include a small (6 person) bunkhouse, shop, parking area, storage area and hookups for temporary trailer use. Consider 1 house that could be used by a volunteer caretaker throughout the winter. Est. $250,000.

15. Provide visitor information through brochures, nature trails, and interpretive signs that explain the scenic, recreational, wildlife and historic values of the river corridor. Est. $50,000 total.

16. Analyze alternative routes and document the environmental effects of constructing a trail system that generally parallels the Recreational River corridor, ties in with existing roads north of the river, and could potentially tie in with trails in Larimer County and the City of Fort Collins. Est. $10,000.
17. Construct a trail system based on the analysis above. Est. 40+ miles at $12,000 per mile, $480,000 Total. Work with volunteers to complete this long term project and reduce actual costs.

18. Develop and implement signing for recreational facilities and sites within the Wild and Scenic River Corridor. Est. $15000.

B. SCENIC QUALITY AND VEGETATION MANAGEMENT

1. Plant trees and other vegetation to improve landscaping around structures and screen them from view of the road and the river. Est. $10,000 per year for 5 years.

2. Provide limited fuelwood sales at appropriate sites to remove dead trees, improve scenic quality, and reduce the risk of wildfire. Provide 250 to 500 cords per year for 3 years. Est. costs and revenues of $5,000 each per year.

3. Prepare vegetation management plans for high use campgrounds and day use areas. a) Mountain Park, b) Kelly Flats, c) Ansel Watrous, d) Dutch George Flats, e) Diamond Rock. Est. $2,000 per plan.

4. Improve 2 parking areas for scenic viewing. Est. $3,000 each.

C. SOIL AND WATER

1. Stabilize and revegetate the river banks that have been damaged by high waters and heavy recreation use. Highest priorities include: a) Ansel Watrous, b) Mountain Park, c) Dutch George Flats, d) Diamond Rock, e) Narrows Picnic Ground, and f) Kelly Flats. Est. $50,000 per year for 5 years.

2. As cooperative opportunities allow, remove, replace, or modify hazardous structures in the river channel such as old bridge pylons, low bridges and water diversion structures. Est. Total of $150,000-400,000 for each road bridge, $200,000 for each water diversion structure. Cost could be shared between the government and other benefiting interests.

D. WILDLIFE AND FISHERIES

1. Implement Fisheries Habitat Improvement Projects. Priorities include: a) Mountain Park, b) Ansel Watrous, c) Diamond Rock, d) Stevens Gulch, and e) Stove Prairie Landing. Est. $3,000 per year for 5 years.

2. Inventory riparian vegetation. Est. $5,000.

3. Maintain or improve riparian vegetation, as determined by the riparian inventory. Est. $15,000 per year for 3 years.

4. Construct or improve parking areas for fishing and wildlife observation. Est. 2 parking areas 25,000 each, 2 signs 2,500 each.

5. Burn 200 to 300 acres per year using prescribed fire to maintain and improve wildlife habitat and reduce the risk of wildfires. Use cutting or
other vegetation management if burning is not effective in reducing trees. Est. $10,000 per year for 5 years.

6. Develop and install an interpretive sign to explain bighorn sheep habitat improvement efforts. Est. $5,000.

7. Construct 2 fishing access areas with trails and ramps to the river, for people with limited mobility. a) Century Park Fishing Access and Trail $70,000, b) Other river access $10,000, Est. $80,000 Total.

8. Cooperate with other agencies to reintroduce Peregrine Falcons: Est. Initial investment of $10,000, then $6,000 per year for 3 years.

9. Install 2 osprey nesting platforms and develop observation areas. Est. $5,000 each.

10. Modify fences for safer wildlife crossing and to improve esthetics. Est. 5 miles at $8,000 per mile.

E. FIRE

1. Plan and construct 2 helispots. Est. $3,000 each.

2. Create fuel breaks in key locations. Est. $15,000.

3. Implement a cooperative fire prevention program with the Colorado State Forest Service. Est. $5,000.

4. Complete a Modified Suppression Plan for this area, based on District and Forest level plans. Est. $5,000.

5. Assist with Fuels reduction through small commercial sales above. Est. $1,000 per year for 5 years.

6. Assist with prescribed burning for wildlife habitat and other resources as needed. Est. $1,500 per year for 5 years.

7. Accomplish prescribed burns through unplanned ignitions when appropriate. Est. $3,000 per year, as needed.

F. LANDS, SPECIAL USES AND MINERALS

1. Survey and post National Forest boundaries in key locations to prevent trespass on public and private lands. Est. 10 miles at $10,000 per mile.

2. Acquire scenic easements, rights of way, or land in fee title from willing sellers where needed to protect the scenic quality and provide public access to the river and adjacent lands. Priorities include: a) Elkhorn Creek, b) Mishawaka area, c) City of Fort Collins properties, d) west of Sleeping Elephant CG, e) Division of Wildlife and State Land Board properties, f) north of Spencer Heights, f) undeveloped river frontage from willing sellers. Est. $2,500,000+ for land value, and 10 cases at $20,000 per case for appraisal and legal work.
3. Identify private roads on National Forest land. Determine the need for these roads and close, issue permit or easement as appropriate. Est. $2,900 per easement.


5. Implement guidelines and recommendations for bridges under special use permit. Identify those that are hazardous and need modification. Est. $3,000.

6. Continue to work with company representatives to determine where power and telephone lines can be reasonably relocated or buried, as part of the long term plan to improve scenic quality. Est. $5,400 + $2,000 for specialist input.

7. Implement regulations for Recreation Residences and Isolated Cabins as new policies are developed. Inspect cabins and residences every 2 years to ensure that they are maintained to standards and don't impact the river. Est. $2,000 per year for administration of all permits.

8. Acquire recreation residences or isolated cabins that are available from willing sellers. Est. 3 cases at $30,000 per case.

9. Review all other special use permits to prevent conflicts with scenic and recreational values in the river corridor. Modify permits as needed to protect the river corridor. Est. $1,500.

10. Research mining status and reclamation needs for claims within the corridor. Coordinate with the State and BLM on reclamation. Est. $6,000.

11. Revise existing mineral withdrawals, and prepare additional withdrawal documents to protect the designated river sections, as authorized by the Wild and Scenic Rivers Act. Est. $2,000.
APPENDIX A
CACHE LA Poudre WILD AND SCENIC RIVER
BOUNDARY MAPS

The following maps show the legal boundary for the Cache La Poudre Wild and Scenic River.

Note the change near Big South trailhead, to move the Wild River boundary to coincide with the Comanche Peak Wilderness Boundary. This provides more consistent management by enclosing the Wild River segments entirely within Wilderness areas. It also takes Highway 14, the Big South Trailhead, and Big South Campground out of the Wild River designation and into the Recreational River corridor.

The narrative description of the boundary is available for review at the Estes-Poudre Ranger District.

The circled numbers on the maps refer to the location of specific areas and facilities described in Appendix B.
CACHE LA Poudre Wild and Scenic River
Administered by The Arapaho & Roosevelt National Forest
& Rocky Mountain National Park

- Wild River-Roosevelt National Forest 16 Miles
- Recreational River 45 Miles
- Wild River-Rocky Mountain National Park 14 Miles

For Details Segments A - G, See Appendix.
APPENDIX B

CACHE LA Poudre Wild and Scenic River
SITE SPECIFIC RECOMMENDATIONS

This document site specific recommendations on developed recreation facilities, potential land acquisition, river access needs, commercial rafting use, and potential trails for each section of the Wild and Scenic River. These recommendations are based on past, present, and estimated future use trends, inter-disciplinary Forest Service and other agency review, and public comments.

Recreation facilities are listed from the lower canyon to the upper canyon, and then the South Fork. The number to the left of each facility or area, refers to its map location in Appendix A.

LOWER Poudre - Poudre Park to South Fork:

1. WILD AND SCENIC RIVER BOUNDARY - This boundary was drawn as a compromise to allow designation of most of the Poudre River, and leave undesignated the area downstream that had the most potential for water development. This boundary is above the high water mark of any potential water storage or development that could occur downstream.

2. HEWLETT GULCH TRAIL - Maintain the existing public access to Hewlett Gulch, primarily for hiking and mountain bike use. Further study will determine appropriate level of use and need for possible trailhead development.

3. Poudre Park Picnic Area - Maintain day use parking and facilities for 2 picnic units and access to the river. Use includes picnicking, fishing, kayaking and rafting. Redesign and pave the road and parking area, for safer access on and off of Highway 14. Maintain the pull through road to accommodate large recreation vehicles and trailers. Continue to allow limited use as a takeout for commercial rafting until an alternative area is available upstream from the Poudre Park bridges and Pineview Falls. Stabilize the streambank for safer access to the river.

4. DIAMOND ROCK PICNIC AREA - Maintain day use parking and facilities for 7 unit picnic area and river access for fishing and non-commercial floating. Continue to allow use of one site at the far east end for commercial rafting picnic area if needed. Perform extensive bank stabilization.

5. MISHAWAKA PICNIC AREA - Construct 6 picnic units. Maintain day use parking and river access for fishing and non-commercial floating. Redesign the highway entrance to improve safety.

6. ANSEL WATROUS CAMPGROUND - Maintain the existing 19 unit fee campground. Maintain the small day use parking area in the middle section for river access for fishing and non-commercial floating. Prohibit day use parking in the rest of the campground, unless a fee is paid for use of a campsite. Relocate one toilet to a more central location. Construct a foot trail to connect the middle and lower sections of the campground. Install a well and handpump to allow year around use and fee collection in the middle section.
7. YOUNG GULCH TRAIL & PICNIC AREA - Construct a 6 unit picnic area for families and small groups. Provide a fire ring to serve group use. Design parking areas to serve picnicking and camping. Maintain existing trail. Pursue alternatives to provide a loop trail and/or a through trail to Stove Prairie road. Acquire right of way across state land in section 16 and across private land at Stove Prairie Road, if possible.

8. MISHAWAKA INN - PRIVATE PROPERTY - The private parking area on the east side of Mishawaka Inn, is heavily used by non-commercial kayakers and rafters. The landowner has allowed some public use of his land for river access, but public parking sometimes conflicts with parking space needed for customers. Cooperate with the owner of Mishawaka Inn to provide public parking and river access. Acquire all or part of the land (80 acres, 3 parcels) from willing sellers if possible. The historic significance of Mishawaka Inn and any potential impacts would have to be considered.

9. STOVE PRAIRIE LANDING CG - Improve the 8 unit non-fee camping area by installing a well and hand pump and charging a fee for camping. Expand to 10 units if possible and design for year around use. Prohibit day use parking within the campground to prevent overuse of the river bank and conflicts with campers using the area. Allow limited parking for fishing and non-commercial floating until Upper Landing and Stevens Gulch are redesigned for day use.

10. UPPER LANDING PICNIC AREA - Continue to provide parking and river access for commercial rafting until Stevens Gulch is redesigned to serve this use. Redesign and pave the access road to provide safe parking off of Highway 14 for picnicking and non-commercial kayaking and rafting. Construct an 8 car parking area, new toilet, 8 picnic tables and grills, and improve access to the river. Control poison ivy near developed facilities and river access points.

11. STEVENS GULCH PICNIC AREA - Convert 5 unit non-fee campground to a day use area for fishing, picnicking, rafting and kayaking. Provide 6 picnic tables and barbecue grills, and day use parking for 6 vehicles. Redesign access road to provide a one way pull through loop for large recreation vehicles, buses and trailers. Protect the existing river overflow channel and two apple trees. Provide short term (20 minute) parking near the river for unloading rafts. Allow a maximum group of 50 people at one time or 1 bus. Develop a bus parking area across the highway. Protect existing cottonwoods. Interpret the unique ecological and historical features of the site.

12. NARROWS PICNIC AREA - Maintain day use parking for picnicking, fishing and river access. Reconstruct the 12 picnic sites. Redesign the parking area and access road to improve safety and delineate parking spaces. Coordinate with the redesign of the adjacent campground, with a trail connecting the two areas.

13. NARROWS CAMPGROUND - Expand and upgrade the existing 6 unit non-fee campground. Provide water and expand to a 12 unit fee camping area. Plant trees and shrubs and design for small group "cluster" camping and walk-in tent camping. Provide a rafting take-out and group picnic area adjacent to Narrows Picnic Area. Allow maximum group of 50 people at one time or 1 bus. Separate rafting takeout, picnic area, and trailer dump station from the camping area by design and vegetation screening. Maintain the trailer dump station and charge a fee. Remove the facility when adequate private dump stations are available.
14. ELKHORN CREEK AREA - PRIVATE LAND - This is a 50+ acre parcel of undeveloped private land surrounded by National Forest land. The area is important for its scenic, wildlife, riparian, and recreational values. Acquire the land or an easement from a willing seller, if possible. If acquired, this area has good trail opportunities for hiking and mountain biking, while protecting its wildlife and riparian values.

15. DUTCH GEORGE FLATS CAMPGROUND - Historically used by 25 to 45 vehicles for overnight camping, with no sanitation facilities. Construct a 25 unit fee campground outside of the floodplain. Provide toilet facilities, water, and barriers to protect the trees and the river bank. Design the camping units to allow small groups or clusters of vehicles to camp together as they do now. Design flat areas next to the meadow to serve persons with limited mobility. Provide a small (4 car) parking area for limited day use access to the river on the west end, separated from the campground. Interpret the history of Dutch George.

16. CENTURY PARK FISHING ACCESS - (mile marker 100) - Improve fishing access to the river for persons with limited mobility. Construct a parking area, toilet and 1/2 mile of access trail downstream and adjacent to the river. Connect this facility with a short foot path to Dutch George Flats. Use materials that blend with the environment and protect the river bank.

17. MOUNTAIN PARK CAMPGROUND - Maintain 46 unit fee campground, 20 unit picnic area, and large group picnic area. Repave and renovate water system and other facilities. Prepare vegetation management plan and plant trees, shrubs, and forbs. Conduct major bank stabilization work. Redesign the upper group picnic area and reserve for overnight group use. Maintain parking area for the Mt. McConnel/Kreutzer National Recreation Trail. Continue to provide day use access to the river at the lower picnic area.

18. KELLY FLATS CG - Maintain 23 unit fee campground. Acquire 80 acres from City of Fort Collins. Expand campground by adding 15 more units. Design expansion to protect riparian vegetation, and minimize impacts on meadow areas. Develop a nature trail to interpret riparian and wetland ecology.

19. WINTERSTEEN JEEP ROAD - (Kelly Flats) - Maintain road for 4 wheel drive use. Construct a small parking area with landscaping and barriers to limit the area of use and improve scenic quality next to the highway.

20. WILD TROUT WATERS - Cooperate with the Colorado Division of Wildlife in the management of State Wild Trout Waters. This Wild Trout Water designation starts at the Pingree Park Road junction and ends at Hombres Ranch. This section of river is not stocked and special fishing regulations apply.

21. EGGERS PICNIC AREA - Maintain day use parking. Construct a 10 unit picnic area, and access to the river for fishing and kayaking. On north side of the highway: Interpret the history of Eggers town site, potential trail parking area and good trail opportunities to the east and west for hiking, mountain bike and horseback use.
22. INDIAN MEADOWS PICNIC AREA - Replace the toilet and redesign the area for day use parking, picnicking (4 units), fishing, and river access. Continue to provide limited access for commercial rafting. Redesign the parking area for safer turnaround for vehicles with trailers. Do not allow buses.

23. INDIAN MEADOWS TRAIL - Potential trail on the north side of the river from Dadd Gulch bridge east to tie in with potential trails in the Eggers area. An old road runs through this area, which is closed to motor vehicles and receives hiking and hunting use.

24. DADD GULCH TRAIL - Redesign and expand the parking area and trails to serve horseback, mountain bike and hiking use. Trail opportunities include: Dadd Gulch, Mineral Springs, Hombres and Indian Meadows. Alternative site for a Forest Service Work Center, if the area behind Arrowhead Lodge can not be used.

25. DADD GULCH BRIDGE - Colorado Department of Highways will relocate the bridge in 1990 to improve safety. They will provide day use parking and access to the river on both sides for fishing and non-commercial floating, and relocate the access road for Dadd Gulch trail to the south.

26. HOMBRES PICNIC AREA - Construct a new access road off the highway about 200 yards east of the existing access. Protect the wet meadow areas and prevent trespass on adjacent private land. Construct a day use area on the north side of the river primarily for fishing and river access for non-commercial floating and limited commercial use. Provide facilities for picnicking (10 units), and a trail along the river for fishing. Interpret history of Hombres Ranch. Move the temporary work center, when a new site is located.

27. MINERAL SPRINGS TRAIL - Relocate existing trail to avoid private property and connect it with Dadd Gulch Trail and parking area.

**UPPER POUDRE - RUSTIC TO BIG SOUTH TRAIL:**

28. SEVENMILE 4WD ROAD - Maintain motorized recreation opportunities. Designate sites where overnight camping may occur within the Recreational River corridor.

29. FISHING ACCESS - Prevent public trespass on private lands. Some private landowners allow public fishing access along the river. Public must ask permission to cross private land. Any cases of trespass or vandalism on private property will be prosecuted by the County Sheriff.

30. POUDRE RIVER CABINS - PRIVATE - Cooperate with business owners to encourage trailer dump stations on private land. Forest Service operations will not compete with private enterprise.

31. ARROWHEAD LODGE - Cooperate with local residents to nominate the lodge to the National Register of Historic Places. Develop a non-profit cooperative organization of area residents, visitors, contributors and special interest groups, to assist with fundraising and volunteer work. Restore the main lodge for a visitor information and interpretive center as donated funds allow. Work
with Rocky Mountain Nature Association, CSU and local historical groups on
donations, research, interpretation, and publications.

32. FOREST SERVICE WORK CENTER - Construct a small work center and housing for
summer employees in the area behind Arrowhead Lodge, or alternative site if
this one is not acceptable. This site has an existing sewer system, well,
electricity and telephone lines. Work center would be combined with other
existing structures in the Upper Poudre community, and would improve the
visibility of the Forest Service for better service to the public. This site
can be attractively landscaped to maintain the scenic quality. Alternative
sites include Dadd Gulch, Eggers, or potential sites on acquired land.

33. WILD TROUT WATERS - Cooperate with the Colorado Division of Wildlife in
the management of State Wild Trout Waters. This Wild Trout Water designation
starts at Black Hollow Creek and ends at the west side of Big Bend Campground.
This section of river is not stocked and special fishing regulations apply.

34. RIVER ACCESS - Maintain existing parking area and stabilize access to the
river. Continue to provide access to the river for fishing, rafting and
kayaking.

35. PRIVATE LAND - Pursue opportunities to acquire private land from willing
sellers, if possible. Give priority to undeveloped land adjacent to the river.

36. HOME MORaine GEOLOGIC SITE - Renovate parking area and interpretive site.
Upgrade the interpretive sign, using a design and materials consistent with the
rest of the Wild and Scenic River.

37. ZIMMERMAN TRAIL - Analyze alternatives for relocating the start of
Zimmerman trail away from private land. Relocate it to come out on Division of
Wildlife or National Forest land to the west of its present location.

38. STATE TROUT REARING UNIT - Maintain state ownership of lands needed for
the trout rearing unit. Cooperate to provide parking and access to the river,
and consider trail opportunities along the river. Cooperate with DOW and CSU
to interpret the facility. Maintain signs to warn floaters of the low head
dam, a good portage around the dam, and a small take-out area near the
Centennial Cabin. Pursue opportunities to modify the diversion structure to
provide a safe passage for floaters.

39. STATE LANDS - Develop a cooperative agreement with the Division of
Wildlife to ensure consistent management and regulations within the designated
river corridor. Acquire land from the State Land Board and Division of
Wildlife, if possible, to meet mutual objectives and provide cost effective
management.

40. BIG BEND CG - Maintain the 9 unit fee campground. Expand campground to 15
units if needed. Renovate the trailer dump station and charge a fee. Design a
small area for day use parking and access to the river. This campground is
within the State Wild Trout Water designation and special fishing regulations
apply. Evaluate trail opportunities near the campground and adjacent state
land. If other campground sites away from the river are available, Big Bend
could be converted to a day use area instead.
41. ROARING CREEK TRAIL - Renovate parking area. Prohibit overnight camping along the trail within the first 1/4 mile of the parking area, or designate sites that may be used.

42. BLISS STATE WILDLIFE AREA - Develop a cooperative agreement with the Division of Wildlife to provide cost effective and consistent management of the area. Maintain day use access to the river and adjacent lands. Acquire state land if possible, and if mutually beneficial for both agencies.

43. SLEEPING ELEPHANT CG - Maintain the 15 unit fee campground. Acquire private land to the west from willing seller if possible, to expand campground to 25 units. Improve hiking opportunities and fishing access in the area.

44. SPENCER HEIGHTS AREA - Acquire private land to the north of the highway for bighorn sheep habitat. Acquire land south of the river if possible to protect undeveloped river frontage. Acquire other undeveloped areas along the river where possible.

45. LARAMIE Poudre TUNNEL - Provide safe day use parking. Interpret the history of the tunnel and water diversion in the upper Poudre River.

46. TUNNEL PICNIC AREA - Redesign parking area and facilities to provide picnicking, and access to the river for fishing and floating. Replace toilet when the vault starts deteriorating. Provide safe river access for limited commercial rafting put-in. Maximum group size of 25 persons at one time for floating, 4 rafts. Site will not accommodate buses.

47. BIG SOUTH TRAIL - Maintain parking for 12 vehicles. Renovate the area to better define parking sites. The site is too small and close to the highway to accommodate horse trailers. Construct Peterson Lake trailhead for limited horse use in the future.

48. BIG SOUTH CAMPGROUND - Provide water and upgrade the site to a 5 unit fee campground. Do not provide day use parking within the campground.

PETER H. DOMINICK WILDER RIVER (BIG SOUTH):
COMANCHE PEAK WILDERNESS TO NATIONAL FOREST BOUNDARY

49. FISHING - WILD TROUT WATERS - Cooperate with the Colorado Division of Wildlife in the management of Wild Trout Waters. This Wild Trout Water designation starts at the Big South Trailhead and ends at National Forest Boundary. This section of river is not stocked and special fishing regulations apply. This section of river may be considered for re-introduction of greenback cutthroat trout, if suitable and desirable. Coordinate management and regulations with Rocky Mountain National Park.

50. CAMPING - Designate sites away from the river for camping. No camping or fires within 100 feet of the river. Stabilize the river bank and revegetate areas impacted by camping and campfires along the river.

51. PETERSON LAKE - Relocate trailhead parking at least 1/2 mile from the Big South Trail bridge site to prevent overuse of the Wilderness and impacts on the Wild River. Provide for hiking and horseback use.
52. BIG SOUTH TRAIL BRIDGE - Replace bridge in same location northeast of Peterson Lake. Consider the kayaking use of this river segment in the design of the bridge and placement of support structures. Recommend single span bridge for safety and to prevent barriers in the river channel. Request permission to use mechanized equipment to reduce costs, increase safety, and revegetate the old clear cut area near Peterson Lake. Est. $80,000. Work with volunteers to reduce costs.

53. BIG SOUTH TRAIL - Relocate trail segments upstream from Big South Trail Bridge and east of Peterson Lake to allow travel the entire length of the Peter H. Dominick Wild River. Locate the trail to protect the river.

54. CORRAL CREEK BRIDGE - When bridge needs to be replaced, construct it higher to allow kayaks to pass safely underneath.

SOUTH FORK OF THE Poudre - WILD:
CACHE LA POUDRE WILDERNESS

55. FISHING - Recommend Wild Trout Water Designation and appropriate DOW regulations aimed at maintaining self-sustaining wild trout populations. Fishing would be more regulated. Stocking would only be used as an emergency measure to re-establish natural fish populations lost to natural or man caused actions.

56. NO TRAILS - Maintain the primitive character of the Wild River. Do not construct trails. Stabilize areas that may be impacted by high use at the more accessible points along the river.

57. LAND ACQUISITION - Acquire 160 acres from City of Fort Collins if possible. This land is adjacent to the Cache La Poudre Wilderness, and within the Wild River Corridor. One half mile of the designated river flows through this property, and two 4WD roads go through the property to the river. Work out a cooperative agreement with the City if the land can not be acquired.

SOUTH FORK - RECREATIONAL - PINGREE PARK AREA:

58. FISH CREEK CG - Short term, allow use of 25 non-fee camping sites along the river. Long term, construct a 50 unit fee campground and 50 person group area outside of the designated corridor, near Jacks Gulch. After new campground is developed, revegetate most of the old campsites, and redesign to provide limited day use picnicking and fishing.

59. PRIVATE LAND - acquire undeveloped river frontage and/or fishing access from willing sellers if possible.

60. TRAIL POTENTIAL - Provide limited foot trails for fishing access and hiking on federal and state lands along this section of river. Locate trails to avoid private land and prevent public trespass.

61. TOM BENNETT CG - Short term, maintain the 12 unit non-fee campground. Longterm, Construct a 25 unit fee campground and 25 person group area away from the river bank, and on the north side of the river. Convert part of the old campground to a day use area, and revegetate the rest. Relocate the Emmaline Lake and Cirque Meadows Trailhead parking areas.
62. CSU PINGREE PARK CAMPUS - Develop a cooperative agreement with Colorado State University for consistent management of CSU lands within the corridor.

SOUTH FORK OF THE Poudre - WILD: COMANCHE PEAK WILDERNESS

63. NO TRAILS - Maintain the primitive character of the Wild River. Do not construct trails. Stabilize areas that may be impacted by use along the river.

64. NO FISHING - Protect the native greenback cutthroat trout population in this section of river. Cooperate with the Division of Wildlife to manage the river and enforce the no fishing regulation.
APPENDIX C
WATER QUANTITY
CACHE LA Poudre WILD AND SCENIC RIVER RESERVED WATER RIGHTS

Summary

This appendix details the methods used for flow quantification for the application for a reserved water right for the Cache La Poudre River Wild and Scenic River. The reserved right explicitly stays within the existing operational hydrology of the river and recognizes existing absolute and conditional water rights.

History

The legislation (P.L. 99-590) that designated the Cache La Poudre River as a Wild and Scenic River also directed the Forest Service to file for reserved water rights which would protect the qualities for which the river was designated.

The Forest Service originally filed for a reserved water right on Dec. 30, 1986. The amount claimed was the "Amounts necessary to fulfill the purposes of the Wild and Scenic Rivers Act, 16 U.S.C. §1284, which amounts comprise the natural flow of the river..." When the application was filed in water court, there were numerous objections from other water rights holders. The primary basis for the objections were:

1. That the Forest Service had failed to quantify the amount of water necessary to fulfill the purposes of the reservation.

2. That the Forest Service failed to recognize existing and conditional water rights.

3. That the water right should be restricted to the minimum amount necessary to accomplish the purposes of the reservation.

Existing Water Rights

The Wild and Scenic River water right will be a very junior right on the Cache La Poudre River and will be administered as such. All absolute and conditional rights with appropriation dates which precede the Wild and Scenic River right will, by Colorado state water law, be administered as senior rights.

Methods of Quantification

The Forest Service was faced with the problem of attempting to quantify the amount of flow necessary to preserve the qualities for which the river was designated. A review of the legislative history indicated that the "outstandingly remarkable" qualities were scenic beauty and recreation on the recreational segments of the river, and the primitive and pristine nature of
the streams and watersheds on the wild segments. With that in mind, the Forest Service conducted two studies in order to quantify the flow necessary to maintain scenic beauty and recreation.

A scenic beauty study was conducted in order to correlate flow quantity with scenic beauty. Sixty-four views were each photographed at numerous flow levels during the late spring and summer of 1988 using color slide and video photography. The scenes showed flow in the river ranging from 120 to 3000 cfs. Scenic beauty judgments were obtained from several observer groups located in Fort Collins and in Tucson, Arizona. Observers' judgments were then scaled, and the relationship between relative scenic beauty and flow was determined. A significant relationship was found between flow and scenic beauty estimated from the video scenes (Brown and Daniel, unpublished).

The recreational study was conducted in 1989. Information concerning recreational activities pursued within the Wild and Scenic River was collected in order to develop a recreational typology. Then, after the recreation groups were defined, participants were interviewed to determine a selection of participation locations for each recreation group, and corresponding optimum flow conditions associated with the locations and recreational activity (Williams, unpublished).

Using the information gained from the studies, a quantification of flows can be made. There are several points which are important to incorporate. The quantification should stay within the existing operational hydrology of the river, in order to account for the exercise of existing water rights; should not include any flows imported from other drainage basins; and should account for senior conditional water rights. For example, the legislative history specifically mentions Rockwell Reservoir.

The river can be divided into the following segments to account for major inflows and administrative boundaries:

1. The mainstem, from the source to its confluence with Joe Wright Creek.

2. The mainstem, from the confluence with Joe Wright Creek to the confluence with the South Fork.

3. The mainstem, from the confluence with the South Fork to the lower boundary of the Wild and Scenic River.

4. The South Fork Cache La Poudre River.

Water rights hydrographs will be developed for each of the river segments. Final quantities for the reserved right will be adjudicated by the Colorado Water Court.
The Wild and Scenic Rivers Act requires that the recreation capacity of the area be determined to provide a balanced program for all users, while protecting the river and adjacent lands. Recreation capacity is defined as the level of use beyond which environmental and other impacts exceed acceptable levels. Acceptable levels are defined by descriptive standards and photographs for each type of area. The Forest Service is working with the CSU Recreation Department to establish these standards, and develop a monitoring program based on the concept of "limits of acceptable change".

A great deal of research has been done nation-wide on the recreation capacity and management of Wilderness Areas and Wild Rivers. There are well established procedures for determining capacity, allocating use, and monitoring impacts for these more primitive and less developed areas. These methods were used in addressing the Wild River segments within Comanche Peak and Cache La Poudre Wilderness areas. The process and results were documented in the Wilderness Implementation Guides for these areas, and will not be duplicated here. These documents are available at the Estes-Poudre District Office, 148 Remington Street, Fort Collins, Colorado.

For more developed areas, described as Roaded Natural or Rural, very little research has been done on recreation capacity. The Recreational segments of the Cache La Poudre are in the Roaded Natural category, with a major road and developments along most of the river. In 1988, a research project was completed by Kathy Kurtz, a Forester at Estes-Poudre District in Fort Collins, to address this problem. She proposed a methodology for determining and allocating the recreation carrying capacity of the Cache La Poudre River corridor. Her project identified a process for defining the carrying capacity within a roaded natural area. A summary of the process is as follows:

1. Inventory and map the current situation: location of all the recreation activities, developed facilities, parking areas, cultural resources, physical land features, wildlife habitat, fishing areas, land ownership, etc.

2. Arrange the information collected in logical subdivisions or segments of the river. Describe the primary emphasis of each river segment.

3. Describe the four types of carrying capacity: ecological, physical, facility, and social. Calculate both the theoretical and practical maximum carrying capacities for each river segment.

4. Determine the limiting factor or factors. If social, obtain user preference information.

5. Determine and allocate the carrying capacity for each segment. Define the limits of acceptable change.

6. Describe monitoring procedures.
This process was completed for the Recreational River segments, as well as for the undesignated sections of the Poudre River. The following paragraphs give a brief overview of the process and findings. More detailed documentation is on file at the Estes-Poudre District Office.

Four types of capacity were evaluated: ecological, physical, facility, and social. The ecological capacity is concerned with the impacts of recreation use on the ecosystem. Physical capacity is concerned with the amount of land, water, and air space available. Facility capacity refers to improvements such as campgrounds, picnic areas, roads, trails, and parking areas that are available to handle visitor needs. The social capacity involves the interactions of people and their perceptions of a quality recreation experience.

The Arapaho and Roosevelt National Forests Plan (Forest Plan) provides some guidance on recreation use and capacity levels for Roaded Natural or Rural areas such as the Poudre. These guidelines apply to all types of dispersed recreation outside of developed campgrounds and picnic areas. Dispersed recreation activities may include: driving on roads and trails; floating on the river; camping outside of campgrounds; hiking, bicycling, and horseback riding; bird watching and photography; etc. For these types of activities in a Roaded Natural area, the Forest Plan recommends that trail and camp encounters during peak use days may exceed 30 other parties per day; and theoretical area-wide capacities may be 1.2 persons at one time (PAOT's) per acre for moderately forested areas.

Based on Forest Plan guidelines, the Poudre Recreational River corridor was evaluated for area wide capacity. The theoretical capacity for the 45-mile corridor would be 14,400 acres X 1.2 PAOT's per acre = 17,280 people at one time. A more practical area-wide capacity would exclude steep terrain over 40 percent in slope, leaving approximately 6000 acres of more level National Forest land in the Recreational corridor. Based on the same Forest Plan values, the practical capacity for dispersed recreation would be about 6000 acres X 1.2 PAOT's per acre = 7200 persons at one time for the whole area. By definition, this figure for dispersed recreation does not include the capacity within developed campgrounds and picnic areas. These developed areas are designed to accommodate more people with less impact on the environment, by "hardening" and protecting the environment with pavement, gravel, tables, toilets, trash service, etc. The practical capacity of 7200 PAOT's was used only as a guideline to ensure that management actions affecting dispersed recreation do not exceed that amount. The recreation situation in the Poudre is complicated by many Forest Service campgrounds and picnic areas, and 3,000 acres of state and private land and facilities along the river.

The CSU Recreation Resources Department, under the direction of Howard Alden, compiled information on past, present and potential future use trends for developed facilities and dispersed recreation activities within the river corridor. This information is also on file at the Estes-Poudre District Office. Developed facility recommendations in Appendix B are based on their analysis of demand on National Forest land and the limited land base suitable for facility development.
For evaluating the capacity of the Recreational River, the designated area was divided into four sections, the Lower, Middle, and Upper Poudre Canyon, and the South Fork. Each section of the river was evaluated according to the four types of capacity, Ecological, Physical, Facility, and Social, for the primary activities that are presently occurring. To briefly summarize this evaluation, it was determined that the physical land space, and facilities on National Forest land, are currently the main limiting factors for all uses in the Recreational River corridor. The demand for camping and picnicking is twice the supply available in developed facilities. Because there is limited land space suitable for developed facilities, including parking, there may always be competition for space and facilities within the river corridor.

The site specific recommendations in Appendix B are designed to accommodate the current mix of uses, with mitigation measures to improve the ecological condition of the area. These recommendations are summarized below, for each area.

The Lower Poudre area is from Poudre Park, west to the confluence with the South Fork of the Poudre. Overall, the primary emphasis in the Lower Poudre is on day use activities. Current non-fee campgrounds will either be upgraded to fee areas, or converted to serve day use activities only. Conflicts between users are occurring where facilities cannot accommodate both day and overnight use. Facilities in the Lower Canyon will be designed for year around use because they often remain snow free and usable through much of the winter. The physical capacity in some areas could be improved through easements or land acquisition from willing sellers. The river below Poudre Park will be managed consistently with the Recreational River, in accordance with Public Law 99-590 and its legislative history.

The Middle Poudre area is from the confluence with the South Fork to Rustic. The primary emphasis in this area is on camping in developed campgrounds. All day use facilities will serve fishing, picnicking, and floating. Allow a limited increase in rafting and kayaking within facility limitations. This section has a short floating season of 5 to 7 weeks, during high water levels.

The Upper Poudre area is from Rustic to the Big South Trail. Primary emphasis in the Upper Poudre is on providing day use recreation, primarily fishing in cooperation with state and private landowners. Where possible, improve access to the river by acquiring easements or land from willing sellers. Prevent impacts on private and state lands. Where possible, expand existing campgrounds to make them more cost effective to operate. This is also an important bighorn sheep area, with good opportunities for viewing sheep and other wildlife. Allow a small increase in rafting, kayaking, and canoeing. Prohibit dispersed camping to make room for fishing, picnicking, floating, and other activities. Manage the Highway 14 corridor from Big South Trail to Cameron Pass, to be consistent with Wild and Scenic River recommendations.

The South Fork area is from Fish Creek to the Comanche Peak Wilderness Boundary. Primary emphasis along the South Fork is to reduce crowding and the impacts of camping along the banks of the river. Improve day use by relocating overnight use away from the river in developed fee campgrounds. Manage use to prevent impacts on state and private lands in the corridor. Manage other areas along the Pingree Park road, to be consistent with Wild & Scenic River recommendations, in accordance with P.L. 99-590.
Issues related to commercial rafting on the main stem of the Poudre have been the most controversial to many segments of the public. Initially there was very little agreement on how to manage rafting, and how much use could occur without impacting other river users. A detailed analysis was conducted on commercial rafting and, and potential impacts on fishing, kayaking, and non-commercial rafting. Extensive public involvement was conducted to develop alternatives and final recommendations to resolve these issues.

The following is a summary of the analysis of commercial rafting on each factor of capacity for the Recreational River.

**ECOLOGICAL CAPACITY**

Commercial rafting has some ecological impact on the soil, vegetation and water quality at put-in and take-out areas where physical space and facilities are not adequate. Most of these impacts can be mitigated through facility development and stream bank stabilization. Once the rafts are in the water, they have very little impact on the river.

**PHYSICAL CAPACITY**

The physical capacity of the surface of the river is another factor to consider. River capacity can be calculated using a 16 foot average length for rafts or kayaks, and 100 feet between each craft for safety. With 116 feet per craft and 5280 feet per mile, approximately 45 boats could float at one time per mile of river. Theoretically 45 boats could accommodate 45 people kayaking or 360 people rafting, or some combination of the two, per mile of river. A more practical capacity of 30 boats at one time per mile, was used based on river channel characteristics, and actual patterns of use on the Poudre.

Most of the rafting use occurs downstream from Poudre Park and outside of the Recreational River designation. Inside the Recreational corridor, most of the rafting and kayaking occurs below the Narrows, from Stevens Gulch to Poudre Park, along 8 miles of river. Most floaters continue another two miles downstream to the Bridges take-out. The maximum use on weekends in this section has been 20 boats at one time per mile. Average use for this section at optimum water levels on weekends is less than 10 boats at one time per mile.

The most significant physical limitation for the Poudre is flat land in key locations, suitable for put-in, take-out, and parking facilities. Except in a few places, an individual kayaker or rafter can usually find a wide spot to park next to the road and access the river. For commercial rafting, larger put-in and take-out areas are needed. A suitable launch area must have: safe parking for vans or buses with trailers, space to load and unload several rafts, close proximity to river frontage that's wide enough for rafts, some distance away from the highway to prevent traffic congestion.

Many access areas currently being used are 1) impacting private land, 2) next to steep banks with hazardous walking to and from the river, 3) too small to accommodate cars or buses, 4) heavily used for other activities, 5) covered with poison ivy, or 6) causing traffic congestion on the highway. Some areas
have been identified where facilities can serve commercial and non-commercial floating, as well as fishing and picnicking. See Appendix B for site specific recommendations.

SOCIAL CAPACITY

The social capacity for the Poudre has not been determined at this time. Since this is a roaded natural area, the Forest Plan has very few restrictions on social capacity. As mentioned before, encounters with other parties may exceed 30 per day, and there is no limit established for the number of people at one timer per mile of trail or river. With a major State Highway along most of the river, visitors expect to see other people. There is some congestion and crowding at put-in and take-out areas, but once floaters are on the river, existing levels of use are relatively low in most sections. This is based on observations and few complaints from the boaters or other users about crowding on the river itself.

Social capacity has been evaluated for other Wild and Scenic Rivers in the west, where some crowding at launch sites is expected and considered acceptable. Even within Wild River areas, such as the Middle Fork of the Salmon, as many as 200 people at one time may be encountered at put-in and take-out sites.

Outside of the Recreational corridor, complaints have been received about traffic congestion, crowded and unsafe conditions at put-in, take-out, and parking areas, primarily in the Bridges section, downstream from Poudre Park. Alternative put-in and take-out sites are very limited in this area.

The Forest Service Manual on Wild & Scenic River Management recommends that undesignated sections of the river be managed consistently with the designated river to prevent impacts and confusion for the public. As much as possible, river management recommendations for the Lower Poudre will also apply to the undesignated section downstream from Poudre Park. Public Law 99-590 states that management of the undesignated sections can not interfere with potential future water development that may be considered below Poudre Park.

COMMERCIAL RAFTING DOWNSTREAM FROM THE NARROWS

Based on historic use, each outfitter will be allocated a maximum number of groups they may take on weekend days between 8AM and 3PM for initial launch times. Requests for additional launches after 3PM, will be scheduled based on demand.

Outfitters will schedule their initial launches at half hour intervals. Only one outfitter group with a maximum of 50 people, and/or one bus at a time will be allowed at any put-in facility.

For all trips below the Narrows, large outfitters are limited to 120 service days on weekdays, and 100 service days on weekend days, with a maximum of 50 people per group. This allows some increase over past use on weekdays, and a decrease in use on some weekend days. A service day is defined as any part of a day where 1 person takes a guided activity.
Specific requirements will be worked out with each outfitter under the terms of their permit and operating plan. Consideration will be given to the limitations of each launch site, and each outfitters method of operation.

Most of the non-commercial floating use occurs from 11AM to 3PM on weekends. Within service day limits, outfitters may schedule an additional launch after 3PM.

For the Filter Plant, Bridges and Mishawaka sections, the initial group launch is usually followed by a second launch on the same or a different section of river. The second launch time may not be restricted early in the season, when a variety of areas are available and groups are usually dropped off and in the water within 5 to 10 minutes. If this does not work out, further restrictions may be necessary.

Late in the season, when only the Bridges section is runnable, facilities are extremely limited, with private kayaking and fishing use competing for the same area. At this time, both the initial launch and second launch will be scheduled to prevent overcrowding, traffic congestion along Highway 14, and conflicts with other users. Again, historic use will be the initial basis for allocation, though all current outfitters that have the skills to run this section may request some use.

The Bridges put-in, below Pine View Falls, has been the main area of conflict between rafters, kayakers, and people fishing in late July and August. The traditional parking area is very limited, and will be reserved for non-commercial use.

For commercial rafting, the parking area 100 yards further west will be improved by treating the poison ivy, and stabilizing the river bank for safer access to the river. This will be accomplished through cooperation with current outfitters. Part of this area will be reserved for commercial groups to unload and launch.

In combination, strict limits on the number of launches, group size, and service days will help to reduce congestion among outfitted groups, and allow space for private groups to use the facilities at the same time. Private floaters may also put-in or take-out at other day use areas and wide places in the road, except where unsafe or specifically prohibited. There may continue to be some crowding at times, until facilities are improved.

Facility use and river use will be monitored on all sections of the river. A user preference survey may be done in the future if use appears to be exceeding the social capacity, based on complaints or conflicts between users.

COMMERCIAL RAFTING UPSTREAM FROM THE NARROWS

For rafting above the Narrows, National Forest facilities for day use and river access are very limited, and camping and fishing have been the main uses historically. Based on facility capacities, limit group size to 25 persons at one time.

Where private land is used as a put-in, and larger groups can be accommodated, groups up to 50 may be allowed depending on the capacity of the take-out area.
These exceptions will be authorized on a case by case basis as part of the operating plan and permit for each outfitter.

A maximum of 2 groups may be launched per outfitter per day for those with historic use above the Narrows. A maximum of 1 group may be launched per outfitter per day for other current outfitters. Launch times will be scheduled, based on facilities used and outfitter requests. These limits are conservative, and will be monitored each season, for possible changes.

Above the Narrows allow a maximum of 50 service days total for outfitters with historic use, and 25 service days for the other 3 outfitters.

No buses will be allowed in Indian Meadows or Tunnel picnic areas.

Overnight camping will be authorized on National Forest land above the Narrows for groups up to 25, for people desiring two day raft trips. Potential sites are all on the south side of the river, including areas across the river from Hombres, Mountain Park, Dutch George Flats, and Narrows Campground. Sites must be accessed by raft, and out of sight and sound of the road and other developments. Portable toilets and firepans are required to minimize impacts on the land and river. No camping will be authorized below the Narrows.

Some sections of river above the Narrows are faster and require higher skill levels for guides and customers. Recommend increased cooperation with State Parks and Recreation to monitor commercial and non-commercial river use and ensure that guides are fully qualified for the river sections they are using.

COMMERCIAL KAYAKING

The current kayaking outfitters, Wildwater and Boulder Outdoor Center, may use up to 50 service days each. Their past use has been much less than that. Some additional guided kayaking, up to 50 service days total, will be advertised, with requirements for small groups and use of facilities that do not conflict with rafting outfitters or non-commercial kayakers.
APPENDIX E

CACHE LA POUDRE WILD AND SCENIC RIVER
COOPERATION WITH LARIMER COUNTY

OBJECTIVE: Provide cost effective, high quality service to the public in cooperation with Larimer County Departments that have management responsibilities in the Poudre River corridor.

A. Establish a cooperative agreement between Larimer County and the Forest Service to improve understanding, minimize duplication of effort, prevent over-regulation, and protect the scenic and recreational value of the river and adjacent lands.

B. Clearly define the roles of each Larimer County department, with respect to management of the Wild and Scenic River Corridor, including: Building, Emergency Management, Engineering, Environmental Health, Forester, Natural Resources, Parks, Planning, Public Works, Road and Bridge, Sheriff's, Weed and Pest, etc.

C. Include at least one representative from Larimer County on the "Poudre River Advisory Group", to improve communication and coordination on concerns that are under County jurisdiction.

PLANNING and ZONING:

In the current Larimer County Land Use Plan, the Poudre Wild and Scenic River Corridor is designated as a Resource Protection Area. In accordance with Section 6(c) of the Wild and Scenic Rivers Act, the Forest Service is responsible for providing guidelines to the County to maintain or improve the existing character of the area, and protect the river and adjacent lands from the impacts of uncontrolled new development and use on private land.

Currently, most of the Recreational River area is classified as an Open District, under the Larimer County Comprehensive Zoning Resolution of 1988. This zoning designation is compatible with the Recreational River, and already includes most of the regulations needed to protect the river and adjacent lands. Generally, these provisions apply only to new developments, and are not retroactive to existing developments.

The following are some of the current zoning provisions that apply to new developments in an Open District:

Minimum of 100 feet setback from the center of the river and other streams and creeks.

Minimum of 100 feet setback from the center of Highway 14 and the Pingree Park Road.

Minimum lot size of 10 acres. (Note: under current State Law, any subdivision of large tracts of land which creates parcels less than 35 acres, are also required to go through the county's planning process)

Maximum height of structures is 40 feet.
The Forest Service would like to be included in the County's review process whenever a variance is requested on any of the above provisions.

All of the uses currently permitted by the County in an Open District (section 22.1) are compatible with the Recreational River designation.

Some of the uses that could be permitted by the County by special review (section 22.2) may not be appropriate or could adversely impact the river unless special mitigation measures are required. These include:

- B. Mining, quarrying, oil drilling;
- K. Automobile wrecking yards;
- L. Cement, lime, or gypsum manufacturing;
- M. Chemical plants;
- N. Fertilizer manufacturing;
- O. Firework or explosive manufacturing;
- P. Garbage, offal, or dead animal dumping operations;
- Q. Glue manufacturing or fat rendering or distillation of bones;
- R. Junk yards;
- S. Slaughter houses and packing houses;
- T. Smelting of ore;
- U. Dragstrips and raceways;
- W. Fuel alcohol plants associated with commercial livestock feeding operations.

The Forest Service would like to continue to be included in the special review process for any of the above uses. For review of these uses, the Forest Service recommends that consideration be given to the effect they would have on scenic quality, as well as tourism and recreation use within the designated corridor.

The Forest Service recommends maintaining commercial developments generally in the areas they already exist, and encouraging new private developments that are compatible with the Recreational River designation.

The Forest Service recommends that new commercial developments be designed to provide adequate parking to prevent problems with unsafe parking and traffic congestion along Highway 14.

Both the County and the Forest Service will work with the owners of existing commercial developments, if desired, to help improve parking where possible.

For new commercial development or new subdivisions, the Forest Service recommends that covenants be developed by the private landowners to encourage protection of the scenic quality of the river corridor, including: the use of colors which blend with the natural environment, where practical; avoid using white or bright colors where visible from the road or river; using materials that fit the rustic character of the area (stone, wood, log, etc.); where fences are desired, using materials and designs that fit the area; and locating structures outside of open meadows, or screened by vegetation where possible.

The Forest Service supports the County's proposal to cooperate with Business Owners in the Poudre area to develop a long term plan for signing, and encourage voluntary compliance over time as existing signs need to be replaced.
Currently, there is no agency that regulates private bridges that cross the river to private land. If it were added to the County's responsibilities, additional money and personnel would be required. No recommendations can be made at this time. Currently, some bridges are a problem to safe rafting, kayaking, and tubing. This needs to be addressed in the future as funding and other priorities allow.

ENVIRONMENTAL HEALTH:

The Forest Service will provide toilets at developed campgrounds and picnic areas where concentrated day and overnight use will occur. A public education program is also proposed to increase understanding and appreciation of the need for action to protect this unique environment.

The Forest Service recommends enforcement of the current requirements for leachfields, septic systems, sealed vaults, and other facilities that could impact water quality. Where sanitation facilities are out of compliance with regulations, the County will work with private landowners to correct these deficiencies within a reasonable time period.

Poudre Canyon is heavily used by self-contained trailers and motorhomes. The Forest Service does not have adequate dump stations to serve this use. The cost of pumping and hauling these wastes to Fort Collins is $6-$8 for each vehicle that's served. Even when a dump station is provided, there are many reports of people releasing their raw sewage on the ground. This is a serious and complex problem. Some RV owners have not been willing to pay for use of a dump station, though management of their wastes is very expensive and is costing all taxpayers.

The Forest Service will cooperate with the County Health Department and the City Waste Water Treatment experts to pursue more cost effective alternatives to prevent impacts on water quality. The private development of dumpstations in the Canyon and in Fort Collins will be encouraged. The Forest Service may open more dump stations if private facilities are not adequate. With this, we will seek authority to charge a fee at each dump station to cover the high costs of pumping and hauling.

LAW ENFORCEMENT:

Recommend Forest Service cooperative law enforcement funds be designated to provide more visibility and higher priority random coverage in the Wild and Scenic River corridor. County efforts will be supported by increased Forest Service personnel with law enforcement and other responsibilities in the Poudre Canyon and Pingree areas.

EMERGENCY SERVICES:

The Forest Service will continue to cooperate with the County Sheriff's Department on search and rescue and fire suppression. Operating plans are updated each year by both agencies.

The County has identified two areas where tubing could occur safely: from the Filter Plant to Picnic Rock at 500 to 1500 CFS flows; and from below the Fish Hatchery Diversion Dam to the bottom of the meadow near the Centennial Cabin.
Based on current state regulations, it is difficult to restrict tubing where it is unsafe. To enforce tubing restrictions a sign would be required at every potential put-in and take-out point, which for the Poudre is everywhere along the highway and the river. This level of signing would be infeasible and undesirable. Other alternatives will be pursued.

Residents in the Upper Poudre Canyon, above Rustic, would like to have EMT services closer and more available to them. The County Sheriff and Poudre Valley Hospital have donated ambulances, and have made training available to residents, but local volunteers are still needed. Government agencies in the Canyon may encourage employees to get EMT certification on a voluntary basis, but over the long term this is a community responsibility.

LARIMER COUNTY TRAILS

Continue to cooperate with Larimer County Parks Department to provide a system of primitive roads and trails that link Fort Collins and the Poudre Canyon.
APPENDIX F
CACHE LA Poudre WILD AND SCENIC RIVER
RECOMMENDATIONS TO STATE AGENCIES

OBJECTIVE: Provide cost effective, high quality service to the public in cooperation with State agencies that have management responsibilities in the river corridor.

A. Establish a cooperative agreement between all state agencies to minimize confusion and duplication of effort.
B. Clearly define the roles of each agency, including the Division of Wildlife, the State Land Board, State Highway Patrol, State Division of Highways, and Colorado State University.
C. Include at least one representative from the State on the "Poudre River Advisory Group" to increase communication and cooperation and to help resolve issues that may arise.
D. Exchange lands with the Division of Wildlife, and the State Land Board, where mutually desirable for more effective management of the area.

MINING:

Current State regulations address most of the concerns related to mining in the Wild and Recreational River corridor. These recommendations are intended to support the monitoring and enforcement of existing regulations: Prohibit sand and gravel operations within or adjacent to the river channel. Require that visual impacts and screening be addressed in detail in operating plans for other types of mining on private lands adjacent to the river. Require monitoring of mining activities where chemicals could potentially leach into the river and affect water quality. Require erosion control measures and effective reclamation of all mining sites and associated roads. Recommend that no structures be allowed for habitation in conjunction with mining operations on public land within the corridor. Where State owned mineral rights exist on private or federal lands, recommend that these be temporarily withheld from leasing and eventually exchanged to federal ownership if possible.

COLORADO HIGHWAY 14:

Recommend protection of the river channel and prevention of encroachments on the river as first priority.

Soil and rock material that sloughs into the roadway and roadway ditch should be removed for safety and to maintain the drainage. This material should be placed in areas that need soil and rock for stabilization, such as roadway shoulders, washout problems, or other locations as identified. Material should not be pushed into the river channel. If rock material is large blasting may be necessary before removal can be accomplished. Soil and rock may be placed over the edge of the bank for stabilization, as long as it does not enter the stream or cause environmental damage.

All new bare slopes resulting from highway maintenance or reconstruction activities will be planned so that they can be revegetated with appropriate
species common to the canyon area. Existing bare slopes and steep cutbanks that persistently slough material will be recontoured and revegetated, as practical. Joint cooperation between governmental agencies and volunteer groups will be sought for this effort.

Pruning of vegetation to provide clearance and safe sight distance for vehicles will be accomplished in accordance with typical arbocultural practices, with branches cut flush with the trunk of trees. Other maintenance activities will avoid damage to trees along the roadway. Use of chemical treatments will be reviewed by the Forest Service.

Guard rails, where required, will be of W-beam construction and "Cor-ten" (weathering) steel, unpainted.

Signing will be coordinated between all agencies to clearly identify recreation sites to improve the flow of traffic and service to the public. All signs in the highway right of way will be of uniform design standard. Lettering will meet MUCTD dimensions so the signs can be read by motorists travelling at average highway speeds. Any private advertising signs allowed in the highway right of way must be reviewed by the Forest Service.

Recommend monitoring and enforcement of load weight limits for large trucks.

Recommend measures to reduce traffic congestion along the highway. Cooperate with the State Highway Patrol to enforce situations where unsafe parking is affecting public safety or creating impacts on the river; reduce unsafe access roads and bridges; and maintain signing for management of recreation use on public and private lands.

The Colorado Department of Highways (CDOH) last major improvements along Highway 14 are the three bridges that will be replaced in the spring of 1990. These bridges are at Elkhorn Creek, Dadd Gulch/Indian Meadows, and below Poudre Falls. After those projects, recommend that Highway 14 not be substantially altered from its present capacity and design, consistent with the Wild and Scenic River Management Plan.

Forest Service supports the continuation of traffic counts to periodically monitor and compare use over time, both within the canyon and for through traffic. Continue to share this information between agencies.

The current USFS/CDOH Memorandum of Understanding generally covers operation and maintenance of all state highways. To improve communication and cooperation between the people at all levels of our agencies, recommend more regular meetings, more communication in the field, and a more detailed annual operating plan for Highway 14.

Forest Service will grant an Easement to the State of Colorado for Highway 14, with stipulations for the management of lands within the easement.

Parking areas for recreation activities will be designated by the Forest Service. Over the long term, recommend cooperation to pave some of the larger parking areas and paint stripes to clearly show where vehicles are allowed to park. The Forest Service would also like to cooperate to pave some of the main
access roads in the larger campgrounds, by tying in with other paving activities along the highway to reduce costs.

As highway maintenance and repaving occurs, recommend providing a wider paved road shoulder to improve safety along the entire corridor, where possible without encroaching on the river channel. Cooperate with the Forest Service to arrive at a standard width for the canyon.

The State Highway Patrol completed a state-wide analysis and recommendations concerning the transport of hazardous materials. Based on this study, Highway 14 cannot be used as a through route for transporting hazardous materials. This regulation does not preclude "local" delivery of gasoline and other products that serve residents of the area. Recommend monitoring and enforcement of this regulation.

The Division of Highways is completing a new handbook and additional training for their employees on vegetation management. Recommend coordination to ensure that Wild and Scenic River concerns are addressed.

Speed limits are set based on a very strict process to maintain consistency throughout the state. Current speed limits in the canyon vary from about 25 MPH to 45 MPH. Recommend speed limits be maintained and enforced. If a hazardous area is identified where accidents are recurring, speed reduction may be needed. The Forest Service or the public may request a speed study if safety problems are identified.

Recommend the use of natural features such as drainage ditches, rock and vegetation for travel management along the highway where possible. FS will work with maintenance supervisors to resolve problems related to parking, safe ingress and egress, and off-road travel within the river corridor.

Identify borrow areas where road base materials can be removed and deposited. Use some of the areas with steep slopes that can be cut back to a lower angle to improve revegetation of the roadside cut banks. Prevent the undercutting and recurring disturbance of roadside slopes that are successfully revegetated. Young Gulch area has been recontoured and will no longer be used as a dump site. Reach agreement on other dump sites.

The CDOH does not currently get involved with the permitting or standards for private bridges that cross the Poudre River, nor does the County. Recommend cooperation between Forest Service, State, and County to develop standards & guidelines for bridges across the Poudre to modify or eliminate hazards in the river channel over the long term.

Minimize new roads and bridges necessary to provide access to private lands. Consolidate bridge crossings to reduce the number of bridges over time.

Bridges and bridge railings will meet FS standards for visual quality, with use of weathering steel preferred.

Forest Service will request access permits for new campgrounds and other facilities that enter or leave the highway. CDOH will be notified as early as possible to jointly review potential locations in the field.
Jointly review operation and maintenance items in the field, with the maintenance supervisors staff as appropriate, to improve overall communication.

Identify individuals in each agency as primary contacts to maintain communication. Include one person from the CDOH on the "Poudre River Advisory Group".

Nominate Highway 14 as a Scenic Byway. Cooperate with the state as they define how these areas are managed state-wide.

WATER:

Water quality is one of the most important values to protect in all management activities. Recommend cooperation between state and federal agencies to maintain and improve water quality.

Forest Service has defined minimum and optimum water flows needed to maintain the scenic and recreational values. We are working with the water users to make sure their rights are protected.

BOATING REGULATIONS:

We currently have very good cooperation from Colorado Parks & Recreation for ensuring public boating safety and regulating Outfitter Guide Operations. Recommend a cooperative agreement on Law Enforcement.

Recommend increased emphasis by the state on monitoring guide training and experience, to ensure that guides are fully qualified to run the more difficult segments of the Poudre River.

Work with the State Parks & Rec and the County Sheriff to allow tubing in the quieter sections of the river, and restrict it where it's unsafe.

LAND EXCHANGE:

Several State agencies own land within the Wild and Scenic River corridor, including Division of Wildlife, the State Land Board, and Colorado State University. Pursue opportunities for cooperative agreements or land exchange to improve management consistency and effectiveness, and reduce confusion for the public. Exchanges will only be considered if they are beneficial to both agencies involved.
APPENDIX G

CACHE LA POUDRE WILD AND SCENIC RIVER
LAWS, FOREST PLAN AND OTHER MANAGEMENT DIRECTION

The Wild and Scenic Rivers Act of 1968 and the Amendment to the Act in 1986, provide a framework for protecting and managing the Cache La Poudre River. Additional direction is given in the Forest Plan, and in Forest Service Manuals on recreation and other resource management.

A. WILD AND SCENIC RIVERS ACT OF 1968

1. "It is hereby declared to be the policy of the United States that certain selected rivers of the Nation which, with their immediate environments, possess outstandingly remarkable scenic, recreational, geologic, fish and wildlife, historic, cultural, or other similar values, shall be preserved in free-flowing condition, and that they and their immediate environments shall be protected for the benefit and enjoyment of present and future generations.

2. Wild river areas--Those rivers or sections of rivers that are free of impoundments and generally inaccessible except by trail, with watersheds or shorelines essentially primitive and waters unpolluted. These represent vestiges of primitive America.

3. Recreational river areas--Those rivers or sections of rivers that are readily accessible by road or railroad, that may have some development along their shorelines, and that may have undergone some impoundment or diversion in the past.

4. The Secretary of Agriculture is authorized to acquire lands and interests in land within the authorized boundaries, but not over an average of 100 acres per mile of river.

5. If 50 percent or more of the land adjacent to the river is in government ownership, the Secretary may not acquire fee title to any lands by condemnation. This does not preclude the use of condemnation where necessary to clear title, or to acquire scenic easements or such other easements as are reasonably necessary to give the public access to the river and to permit its members to traverse the length of the area or selected segments thereof.

6. The Secretary shall issue guidelines, specifying standards for local zoning ordinances, which are consistent with the purposes of this Act. The standards shall have the object of prohibiting new commercial or industrial uses which are inconsistent with the purposes of this Act and the protection of the bank lands by means of acreage, frontage, and setback requirements on development.

7. All public lands within the authorized boundaries of any component of the national wild and scenic rivers system are withdrawn from entry, sale, or other disposition under the public land laws of the United States.

8. Subject to valid existing rights, all prospecting, mining operations, and other activities on mining claims or mineral leases shall be subject to regulations by the Secretary to effect the purposes of this Act. Subject to valid existing rights, the minerals in Federal lands designated as Wild rivers
are withdrawn from all forms of appropriation under the mining laws and from operation of the mineral leasing laws.

9. Each component of the national wild and scenic rivers system shall be administered to protect and enhance the values which caused it to be included, without limiting other uses that do not substantially interfere with public use and enjoyment of these values. In such administration primary emphasis shall be given to protecting its esthetic, scenic, historic, archeologic, and scientific features. Management plans may establish varying degrees of intensity for its protection and development, based on the special attributes of the area.

10. Any portion of a component of the national wild and scenic rivers system that is within the national wilderness preservation system, shall be subject to the provisions of both the Wilderness Act and this Act with respect to preservation of such river and its immediate environment, and in case of conflict between the provisions of these Acts the more restrictive provisions shall apply.

B. **PUBLIC LAW 99-590 (October 1986)** Amends the Wild and Scenic Rivers Act and designates segments of the Cache La Poudre River.

1. Inclusion of the designated portions of the Cache La Poudre River shall not interfere with the exercise of existing decreed water rights to water which has heretofore been stored or diverted by means of the present capacity of storage, conveyance, or diversion structures that exist as of the date of enactment of this title, or operation and maintenance of such structures. Nor shall inclusion of the Cache La Poudre River in the Wild and Scenic Rivers System be utilized in any Federal proceeding as a reason or basis to prohibit the development or operation of any water impoundments, diversion facilities, and hydroelectric power and transmission facilities below Poudre Park located entirely downstream from and potentially affecting designated portions of the Cache La Poudre River.

2. The Federal agency charged with the administration of each component of the National Wild and Scenic Rivers System shall prepare a comprehensive management plan for such river segment to provide for the protection of the river values. The plan shall address resource protection, development of lands and facilities, user capacities, and other management practices necessary or desirable to achieve the purposes of this Act. The plan shall be prepared, after consultation with State and local governments and the interested public within 3 full fiscal years after the date of designation. Notice of the completion and availability of such plans shall be published in the Federal Register.

3. The boundaries of any river proposed for potential addition to the National Wild and Scenic Rivers System shall generally comprise that area measured within one-quarter mile from the ordinary high water mark on each side of the river.
C. ARAPAHO & ROOSEVELT N. F. LAND & RESOURCE MANAGEMENT PLAN (Forest Plan)

1. Management prescription 10D: Management emphasis is on river segments designated as a component of the National Wild and Scenic River System and those recommended for designation. "Wild Rivers" are managed to be free of impoundments and generally inaccessible except by trail, with watersheds or shorelines essentially primitive and water unpolluted. "Recreational Rivers" are managed to be readily accessible by road or railroad, and to maintain developments that may have occurred along the shoreline and impoundments or diversions that may have occurred in the past (III-247).


3. Operate facilities and access to provide site protection, efficient maintenance, and user convenience. Operate sites so they can be managed at designed capacity. Maintain and reconstruct existing and new developed sites in accordance with the guidelines in FSM 2331 (III-248 6279AR).

4. Discourage or prohibit any public use which contributes to impairment of values for which the river was designated (III-248 0369AR).

5. Semi-primitive nonmotorized, semi-primitive motorized, roaded natural and rural recreation opportunities can be provided (III-248 0445).

6. Maintain habitat for viable populations of all existing vertebrate wildlife species. (III-36 0289)

7. Provide habitat for bighorn sheep, elk, and deer as management indicator species at a level between 40 to 80 percent of potential. (III-166 6281)

8. Maintain or improve forage quality and visibility from shrub and tree encroachment on bighorn sheep feeding areas and travel routes. (III-166 0560AR)

9. Maintain the quality for those fish habitats which are capable of supporting self-sustaining populations of salmonid species. (III-39 0130AR)

10. Plan stream improvement projects with the assistance of state wildlife agencies, where aquatic habitats are below productive potential. Plan those improvements that harmonize with the visual setting. (III-40 0660)

11. Improve fish habitat through structural and nonstructural improvements. (III-40 0133AR)

12. Maintain cooperative fish stocking programs in lakes and streams where natural fish production is inadequate to meet the harvest demands imposed by heavy fishing. (III-40 0132AR)

13. Maintain instream flows in cooperation with state wildlife agencies to support a sustained yield of natural fisheries resources. (III-221 0664)

14. Manage and provide habitat for recovery of endangered and threatened species. (III-37 0740)
15. Rehabilitate disturbed areas that are contributing sediment directly to perennial streams as a result of management activities to maintain water quality and reestablish vegetative cover. (III-59 0676)

16. Design and implement management activities which sustain inherent visual values of riparian areas and blend with the surrounding natural landscape. (III-219 0656)

17. Stabilize streambanks which are damaged beyond natural recovery in a reasonable time period with appropriate methods or procedures that emphasize control by vegetation. (III-227 0684)

18. Classify lands or interest in lands for acquisition where lands are valuable for National Forest purposes in Wilderness areas and other Congressionally classified areas, and where lands or rights-of-way are needed to meet resource management goals and objectives. (III-79 0066)

19. Do not approve any special use applications that can be reasonably met on private or other Federal lands unless it is clearly in the public interest. (III-78 0071)

20. Effect jurisdictional transfers which reduce duplication of efforts by users and agencies in terms of time, cost, and coordination; improve public understanding of applicable laws and regulations; and reduce administrative cost. (III-80 0070)

D. FOREST SERVICE MANUAL 2354 - WILD AND SCENIC RIVER MANAGEMENT

1. Prepare a management plan in accordance with section 3(b) of the Act as provided by the designation language.

2. Establish management objectives for each segment of the river. As a minimum, state the Recreation Opportunity Spectrum class featured and procedures for maintaining the ROS for each segment over time. To the extent possible, the management objectives should reflect the river's recreational relationship to nearby rivers.

3. Describe historical trends in use, demands, and needs of the river resources and likely future trends.

4. Include specific and detailed management direction necessary to meet the management objectives.

5. Establish detailed river area boundaries.

6. Establish appropriate levels of recreation use and developments to protect the values for which the river was designated.

7. Provide for public safety and refer to State boating laws, U.S. Coast Guard Regulations, and other applicable State and Federal Regulations.

8. Prescribe actions needed to manage development along the stream bank (Sec. 6 of the Act).
9. Provide for monitoring and evaluating visitor use patterns, use impacts on the river, and visitor experiences.

10. Cooperate with private land owners, local, and State governments, and other Federal agencies to meet demonstrated public need for recreational opportunities within and adjacent to the river area. Work with private landowners to minimize incompatible use and to prevent other potential problems.

E. FOREST SERVICE MANUAL 2721.53, ID 45 - OUTFITTER AND GUIDE SERVICES

1. The authority of the Secretary of Agriculture to regulate the public use of waters is found in 16 USC 551. In United States vs. Hells Canyon Guide Service, the courts held that the Forest Service can regulate use of a river notwithstanding the fact that users put-in and take-out on private land.

2. Issue and administer special use permits for outfitter and guide activities to meet general public recreation service needs as identified through forest land and resource management planning.

3. Priority use is a Forest Service commitment to the holder of a special use permit to priority consideration to allow a given amount of available use for a specified duration. It is a reserved amount assigned to the holder based on past use, carrying capacity, and allocation decisions made through forest planning.

4. Management of Priority Use:
   a. Base the initial amount on the average of the highest 2 years of annual actual use which was authorized under permit during the previous 5 years.
   b. Where recreation use levels are planned and managed in terms of launches and people per launch such as for some National Forest System rivers, establish priority use in terms of service days, but also specify numbers of launches authorized in association with those service days.
APPENDIX H
CACHE LA Poudre Wild and Scenic River Consultation with Others

A. PUBLIC AND OTHER AGENCY INVOLVEMENT

1. Extensive meetings were held from 1984-1986 to work out the compromise for designation of the river segments. Ad Hoc Committee/Advisory board was established for designation of the Poudre. Strong support from: Hank Brown, federal, state and local agencies, most private landowners in the Canyon, and special interest groups.

2. There was extensive news media coverage and a number of special events when the river was designated in October 1986.

3. Scoping and public involvement for the Cache La Poudre Management Plan started in 1987 by Bob Russell, and Estes-Poudre District staff. Contacts included mailings to all local landowners, presentations to groups and many individual calls and meetings.

4. Public involvement activities increased from August 1988 to the present, with new Estes-Poudre District Ranger and new Wild and Scenic River Planner position. Public involvement plan was updated.

5. 9/88 - Developed a computer data base in cooperation with CSU Recreation Department, to record all letters sent or received, phone calls, meetings, news media coverage, and special presentations to individuals and groups. The original notes and documents are on file at the Estes-Poudre District Office.

6. 10/88 - Re-established contacts with NPS, state, county, city, and conservancy district. Identified a person from each agency to work with ID team and channel communication. Discussed issues, concerns, and opportunities.

7. 11/88 - Re-opened channels with non-governmental interests. Explained purpose of plan and issues, concerns and management opportunities for the area. Special interest groups contacted include: local residents and business owners, recreation organizations, rafting outfitters, environmental interests, wildlife and fisheries interests, historical interests, and water users.

8. 1/89 - Developed brief statement of what we are doing and why, and a description of the consequences of not doing this (Problem Statement).

9. 3/89 - Sent news release to 30 newspapers, radio stations, and TV stations. Conveyed the problem statement, what we're doing and why, possible actions, and public involvement in the decision making process.

10. Ongoing - Distributed handouts conveying information in #9 above, as well as other background information and further explanation of the key issues.

11. 3/89 to present - Talked to residents, business owners, and recreation users in the canyon to clarify issues and get ideas for resolving them.
12. Ongoing - Met with other agencies with responsibilities in the river corridor, to improve communication, resolve management concerns and identify opportunities to improve management.

13. 3/89 to 11/89 - Forest Service employees spoke to service clubs and other special interest groups, to get feedback on potential management actions in the Wild and Scenic River corridor, and requested specific comments.

14. 7/89 - Conducted three open houses. One was held in Fort Collins and two in Poudre Canyon, to provide information and get feedback on alternatives and potential actions. For publicity, news release was sent to 30 newspapers, radio and TV Stations. Posters were distributed throughout Fort Collins and at businesses and campgrounds in the Poudre Canyon.

15. 10/89 to 12/89 - Distributed 550 copies of the Draft Plan to interested publics. Comments were accepted through January 15, 1990. Received 55 letters and 75 phone calls about most of the issues in the Draft Plan.

16. 10/89 to 12/89 - Held numerous meetings with interest groups and individuals to get additional comments and develop alternatives to resolve issues. Met with rafting outfitter guides, landowners in the upper and lower canyon, business owners, Colorado White Water Association, local historical interests, State Historic Preservation Office, Division of Wildlife, County Planning and Zoning, and many individuals.

17. 11/89 - Sent letter to potential representatives of agencies and interested publics about forming the "Poudre River Advisory Group". Received individual feedback on the Draft Plan and recommendations for the Final Plan. There was general consensus that the group would not need to meet until after the Final Plan was distributed.

18. 3/90 - Sent Final Management Plan to interested publics.

19. 3/90 - Published a notice of availability of the Final Plan, maps and boundary description in the Federal Register.

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APPENDIX I

CACHE LA Poudre Wild and Scenic River

BIBLIOGRAPHY


Barclay, Dulaney; Beum, Frank; Block, Gregory; Moisey, Neil; Nauman, Andrew; Sherrick, Lois, "The Variable Recreation Opportunity Optimization Model," U.S. Department of Agriculture, Forest Service, (Fort Collins, Colo.: Colorado State University, 1987.

Burnett, Frank Jones, "Golden Memories of Colorado," (Fort Collins, Colo.: Mitchener Printing, Inc., 1965)

Colorado Division of Parks and Outdoor Recreation, "Floating the Poudre, Options for Management, 1985.


Fry, Norman Walter, "Cache La Poudre 'The River' as Seen From 1889," (Published by the Upper Poudre Canyon Association).


Hamilton, Richard, "Recommendations for Management along the Big South Trail Corridor", Colorado State University, Recreation Resources Department, (Fort Collins, Colorado, 1989).


Manfredo, Michael J., "Rawah and Commanche Big South Use Estimates, Summer 1977," (Fort Collins, Colo.: Colorado State University, 1978).


