

LAND AND RESOURCE MANAGEMENT PLAN

MONITORING REPORT



This Monitoring Report reviews actions taken to implement the Land and Resource Management Plan (Plan) for the Pike and San Isabel National Forests, Cimarron and Comanche National Grasslands since its approval through September 2002. The Plan, which was approved in September 1984, lists the monitoring requirements in Chapter IV. This report discloses the monitoring that has been conducted.

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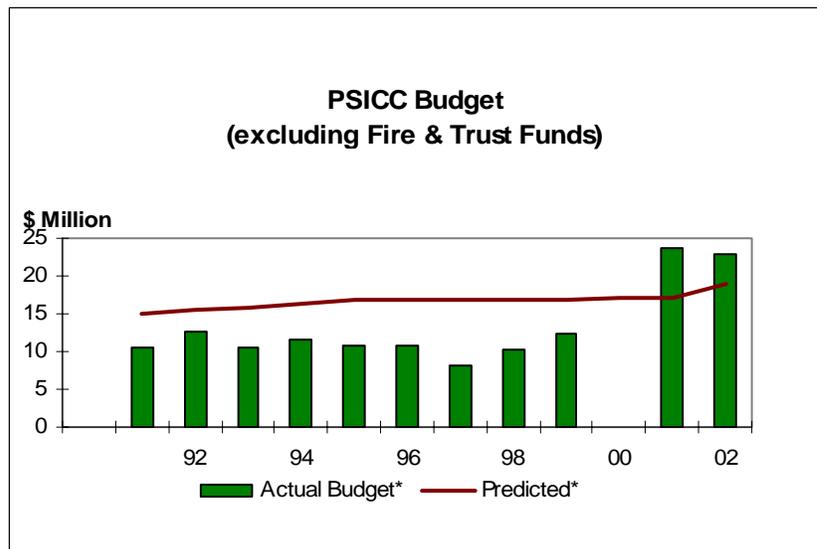
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INTRODUCTION

The Pike and San Isabel National Forests (Forests), Cimarron and Comanche National Grasslands (Grasslands) (collectively referred to as the PSICC) includes 2.8 million acres of public lands. These four units are located in central and southeastern Colorado, and in southwestern Kansas. Management of the PSICC is highly complex because it spans a variety of ecosystems, social and economic settings, and must be integrated with the needs of two state governments and 17 counties.

The PSICC Land and Resource Management Plan (Plan) focuses on resource needs and the desires of the diverse publics being served. Predicted rates of accomplishment corresponded with the needs identified in 1984, the time the Plan was written. As is apparent in many of the following sections, implementation has not kept pace with predicted rates. The following *PSICC Budget* chart shows a comparison of predicted budgets with funds actually received for operations and construction. As can be seen, the predictions made in 1984 have not matched actual budgets. Note that the figures represented in the chart exclude fire and trust fund dollars, as these funds are extremely variable and are outside of the constrained budget for the PSICC.

The PSICC has compensated for fluctuating budgets by forming partnerships with others who are interested in public land management. Within available fund allocations, the goals stated in the Plan are being pursued, though not all objectives are being achieved at the expected rate.



Terminology - The various charts that appear in this report make use of the following terms:

Objective: Plan Objective

Prediction: As predicted in the Final Environmental Impact Statement (FEIS) for the Plan

AUM: Animal Unit Month, describes grazing outputs (1 AUM = 1 cow for 1 month)

FY02: The federal Fiscal Year (FY) for 2002 was from October 1, 2001 through September 30, 2002

MRVD: Thousand Recreation Visitor-Days, describes visitor use (1 visitor day = 12 hours)

MPAOT: Thousand Persons At One Time (PAOTs), describes the capacity of campgrounds and other developed recreation sites (1 campsite = 5 PAOTs)

MMBF: Million Board-Feet, used to describe timber program outputs (1 board foot = an area that is 1 foot long x 1 foot wide x 1 inch thick)

Data gaps – Some charts in this report may appear to be missing outputs where some would be expected. These are data gaps caused by changes in reporting procedures, making data compilation for this report difficult. In addition, the FY00 budget structure was updated in FY01 – combining, creating, or eliminating certain funds. Only the budget structure changes that occurred in FY01 are shown in Table 1.

Table 1. FY2000 to FY2001 Program Name Changes

FY2000 Fund	FY2000 Program Name	FY2001 Fund	FY2001 Program Name
N/A	N/A	SPIA	Forest Resources Information and Analysis
NFRM NFWM NFHR	Recreation Management Wilderness Management Heritage Resource Management	NFRW	Recreation/Heritage/Wilderness
NFWL NFIF NFAF NFTE	Wildlife Habitat Management Inland Fisheries Habitat Mgmt Anadr. Fisheries Habitat Mgmt TE&S Species Habitat Mgmt	NFWF	Wildlife and Fisheries Habitat Management
NFTM	Timber Sales Management	NFTM	Forest Products
NFRV NFFV NFSO NFSI	Rangeland Vegetation Mgmt Forestland Vegetation Mgmt Soil, Water, Air Operations Watershed Improvements	NFVW	Vegetation and Watershed Management
NFLA NFLL	Real Estate Management Land Line Location	NFLM	Landownership Management
PACF PACF PACF PACF PAMF PAMF PAMF PAMF	Recreation Facility Construction Research Facility Construction FA&O Facility Construction Facility Const/Reconst Subtotal Recreation Facility Maintenance Research Facility Maintenance FA&O Facility Maintenance Facility Maintenance	CMFC	Facilities Capital Improvements and Maintenance
PARD PAMR	Road Construction Road Maintenance	CMRD	Roads Capital Improvements and Maintenance
PATC PAMT	Trail Construction Trail Maintenance	CMTL	Trails Capital Improvements and Maintenance

PHYSICAL COMPONENTS

Soils and Water Resources

The soils and water resources program provides the technical information necessary to ensure these resources are sustainable as identified in the National Forest Management Act (NFMA). Management decisions made to implement actions under the Plan are done so by considering soils and water resources data and other technical information. Program monitoring is divided into three major functions: 1) soils inventory; 2) soil and watershed improvement; and, 3) soil and water quality.

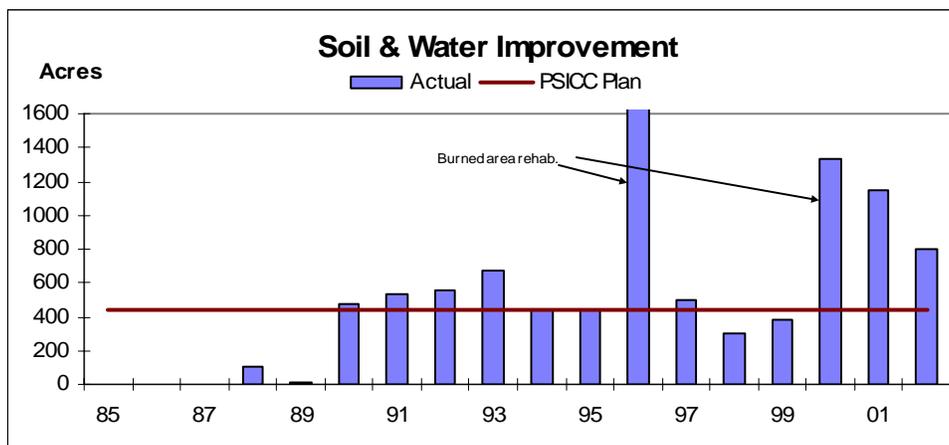
Soils Inventory - a prerequisite to land management planning and implementation. Collecting baseline data is a fundamental requirement supporting resource management mandates identified in NFMA. Modern soils inventories apply an integrated approach to describe and map biotic and abiotic features consisting of geology, landforms, climate, vegetation and soils. Soil surveys in eight major areas¹ on the PSICC have been conducted in cooperation with other Federal and State agencies. Each survey area differs in quality of mapping, available interpretations, and status. Two areas (Pike National Forest, Eastern Part and Morton County) have current published surveys. The mapping, draft manuscripts, and interpretations have been completed for the remaining survey areas.

Soil and Watershed Improvement Program – The future use of Federal lands depends upon the protection and maintenance of soils and water resources. Improving watershed conditions is important for

¹ Pike National Forest, Eastern Part; Wet Mountains and Spanish Peaks; Northern San Isabel and Western Pike National Forests; Sangre de Cristo; Morton County, Baca County, Otero County and Las Animas County.

maintaining long-term ecosystem health at local and landscape levels. The program goals are to identify watershed condition (see **Watershed Assessments**, below), prescribe and implement land treatments, and in some cases to modify management to: 1) protect life and property; 2) protect and improve water quality consistent with the Clean Water Act; 3) reduce or minimize erosion and sediment damage; 4) improve species habitat; 5) increase long-term soil productivity; and 6) ensure long-term health and sustainability of watersheds given the variety of demands on the land. Plan direction includes improving 440 treated or 1,200 affected acres/year. The *Soil & Water Improvement* chart shows treated acres from 1985 to the present. The PSICC has implemented over 400 soil and water improvement projects since Plan implementation, totaling more than 6,000 acres of treated or improved lands, excluding areas rehabilitated following wildfire (see **Burned Area Rehabilitation**, below).

Over the past 17 years, soil and watershed improvement projects have focused on watersheds and stream systems that exceed Federal and State water quality thresholds and standards for sedimentation. Although the PSICC is making progress in restoring degraded watersheds, much work remains to be done.



Watershed Assessments – To be more responsive to watershed improvement needs and landscape health issues across on the PSICC, watershed assessments are developed. Two assessments currently underway involve the Wet Mountains on the San Isabel, and the Cimarron River drainage on the Comanche. Watershed assessments allow identification of status, trend and interrelationships of and between resource conditions. This work sets the stage for determining and prioritizing watershed improvement projects and other management opportunities giving consideration to desired future conditions and cumulative effects.

Burned Area Rehabilitation – Since 1996, there have been six wildfires approved for Burned Area Emergency Rehabilitation (BAER) funding (Buffalo Creek, Big Turkey, Hi Meadow, Snaking, Schoonover, and Hayman). Rehabilitation of burned areas has been in addition to the projected Plan level of watershed improvement projects. More than 34,000 acres have been rehabilitated using a variety of techniques that include scarification, revegetation and seeding, overland flow reduction, and sediment transport reduction treatments using straw wattles, log erosion barriers and directional felling. The Hayman (137,000 acres) and the Buffalo Creek (12,000 acres) fires were the two largest burns in recent years. Major flood events accelerating erosion have occurred within the perimeters of these fires. Runoff from the flood events caused increased sediment levels to drainages within and downstream of the burns, contributing to watershed degradation. The watersheds affected either have been (Buffalo Creek) or will be (Hayman) monitored for two to five years to determine if additional treatments are needed to further reduce potential losses in downstream water quality.

Soil and Water Quality Monitoring – Information regarding the effects of management decisions and subsequent actions involving soils and water comes from monitoring these resources. State and Federal regulations, Plan Standards and Guidelines, and the Inland West Watershed Assessment (completed in 2000) provide long-term objectives and monitoring guidelines used to measure changes in soils and watersheds. Intensive sediment and flow data have been collected on three streams to determine

sediment-flow relationships within three hydrographic regions on the PSICC. Monitoring of the 60+ Colorado Monitoring and Evaluation listed streams, and the 303d listed streams on the PSICC is ongoing. All monitoring data is entered into PSICC's corporate soils and water databases.

Soil Quality Standards - The standards used by the PSICC (those established for Forest Service Region 2) provide threshold values to document major reductions in soil productivity potential. These values serve as early warning signs to indicate when further alteration of soil properties would extensively change or impair soil productivity. Past soils monitoring on the PSICC tied to project implementation, have involved visual assessments of contract provisions and project mitigation designed to reduce degradation of soils and water resources. These projects include or involve timber and salvage sales, roads, trails and facility construction and maintenance, and a range of recreation-related activities. More detailed and quantitative soils monitoring is being conducted. Specifically, soil compaction related to livestock grazing, and erosion related to BAER treatments and OHV use is monitored. In the future, both qualitative project monitoring and more detailed studies of specific management uses and issues on the PSICC will be conducted.

Water Rights

The PSICC's goals are to maintain current water rights, to protect and maintain channel stability and capacity on streams, and to accomplish any proposed increase in water use or resource activity. This includes reviewing the monthly water court resumes in Water Division 1 (South Platte Basin) and Water Division 2 (Arkansas Basin) and filing Statements of Opposition to any of the filings that may potentially harm the rights held by the Forest Service. The review also enables the PSICC to learn of individuals seeking water rights on the Forests and/or Grasslands that may not hold a special-use permit for the use. Rather than filing a Statement of Opposition, PSICC would send a letter to the applicant informing them of the special-use permitting procedures.

In 2002, a Water Rights Coordinator was hired by the PSICC (the first and only in Region 2), to focus on protecting the water rights held by the Forests and Grasslands.

Also in 2002, the PSICC worked on augmentation requirements for Lake Isabel and Manitou Lake. The State of Colorado is requiring PSICC to augment for water lost on both lakes due to evaporation. Engineering firms have been hired and their recommendations for augmentation are under review.

In 1979, the PSICC filed for reserved rights in Water Division 2 (Case No. 79CW176). This case is coming to closure with final negotiations still in progress.

Air Resources

In response to requirements in the Clean Air Act, in 1994 the PSICC initiated a long-term monitoring program to develop baseline data for evaluating air quality-related values in Wilderness Areas. High-elevation lake chemistry is being monitored annually at various locations in the Mount Evans, Holy Cross, and Sangre De Cristo Wilderness Areas. In addition, visibility is monitored for the Mount Evans, Collegiate Peaks and Mount Massive Wilderness Areas. Those data collected will be used for evaluating current relationships between air quality and wilderness values, and for reviewing any proposed projects involving major air emissions that may affect the PSICC's airsheds. Several years of data are needed to derive solid conclusions. In addition, all prescribed fires are managed to comply with Federal and State Air Quality regulations.

Mineral Resources

Energy Minerals – The Grasslands support the majority of the oil and gas leasing, exploration, development, and production activities on the PSICC. However, there is renewed leasing interest along the Front Range. The San Carlos District of the San Isabel National Forest (San Isabel) and Pikes Peak District of the Pike National Forest (Pike) have areas under lease in the Wet Mountains south of Canon City and the Rampart Range northwest of Colorado Springs. The Pikes Peak District has a proposal for two exploratory wells just west of the town of Monument. Also, an exploratory well has been drilled on private land adjacent to the San Isabel boundary south of Canon City, and extensive seismic and other geophysical and geochemical exploration have taken place over the years in these areas.

Locatable Minerals – The South Park District (Pike) supports the majority of mining and exploration activities, with some mining occurring in the South Platte District (Pike), Leadville and Salida Districts (San Isabel). The majority of the small commercial operators mine for amazonite and smokey quartz crystals, with some gold placer mining occurring on the Leadville District. The South Platte District has an on-going deep core drilling exploration for molybdenum above timberline. No major or moderate development or production operations have occurred. Recreational mining activities such as panning, dredging and rock hounding are on a slight increase.

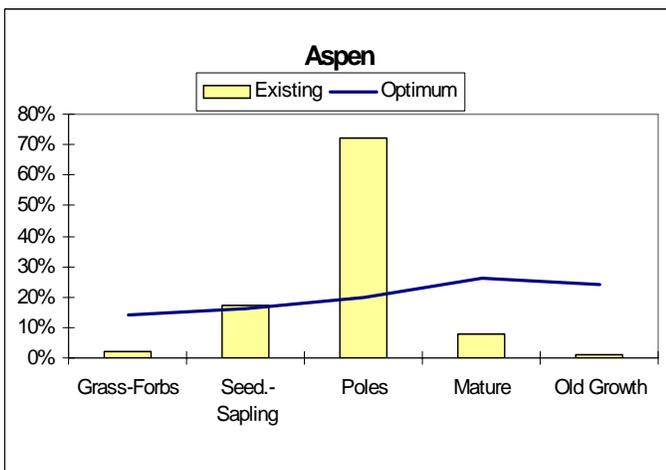
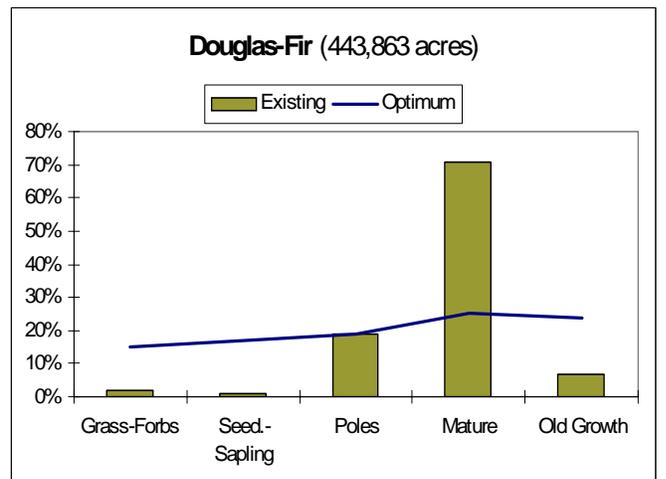
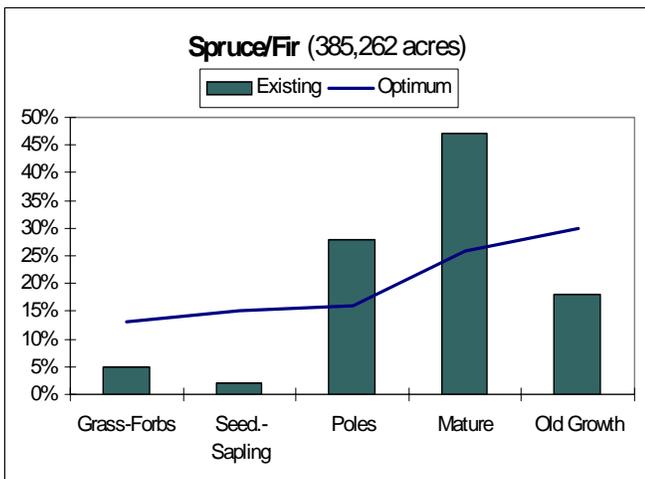
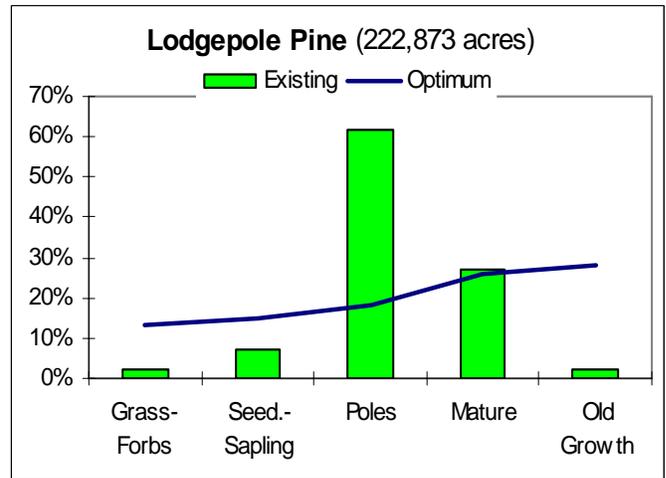
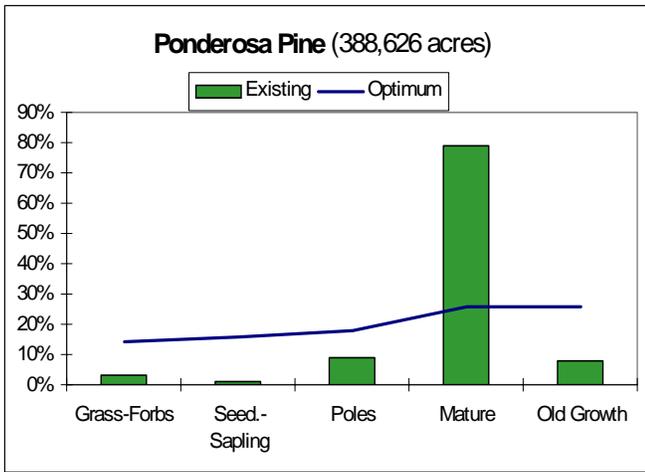
BIOLOGICAL COMPONENTS

Wildlife, Fisheries and Rare Plant Resources

Accomplishment of joint wildlife objectives – PSICC personnel meet regularly with the Colorado Division of Wildlife (CDOW), Kansas Department of Wildlife and Parks, and various other partners regarding wildlife objectives and opportunities for projects that will help achieve shared objectives. Major discussions have focused on big game (primarily bighorn sheep and elk) and fisheries. CDOW's Habitat Partnership Program (HPP) represents one of the best examples of agencies successfully working together to achieve wildlife objectives. HPP committees include representatives from CDOW, the Forest Service, Bureau of Land Management, landowners, and sportsmen's groups who meet to solve big game and forage conflicts on public and private lands. There are three HPP committees on the PSICC, one each for the Sangre De Cristo, Arkansas River, and South Park areas of the San Isabel. There are also two Antelope Conflict Resolution committees that involve the Comanche. The PSICC has established partnerships with Universities and focus groups such as Rocky Mountain Elk Foundation and National Wild Turkey Federation where research and habitat enhancement projects are mutually beneficial to all.

Habitat Diversity – Forested Vegetation

Wildlife Habitat Diversity – Analyses made during development of the Plan compared the existing diversity of forested lands with an optimal age mix that would support a wide variety of wildlife species. The results for PSICC's major forest cover types are shown in the following five charts labeled *Ponderosa Pine, Lodgepole Pine, Spruce/Fir, Douglas-fir, and Aspen*.



The conclusion drawn in 1984 was that an imbalance of the major forest cover types existed, and that relatively young forest stands and old growth were under-represented. Consequently, one goal of the Plan was to focus forest management in over-represented structural stages and produce a landscape with a more optimal mix of habitat characteristics. However, very little forested vegetation management has occurred on the PSICC over the life of the Plan. Instead, wildfires have been the primary cause of changes to forested vegetation types.

Grassland Vegetation

Both the Cimarron and Comanche National Grasslands (Grasslands) lie within the Great Plains Physiographic Province. High winds across the plains that are common in spring and early summer contributed to the “Dust Bowl” conditions of the 1930s. These winds are still considered a threat today, particularly when accompanied by drought, high temperatures and the absence of cover vegetation.

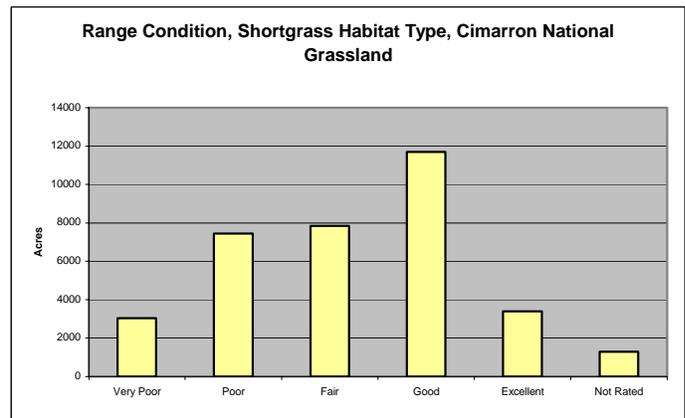
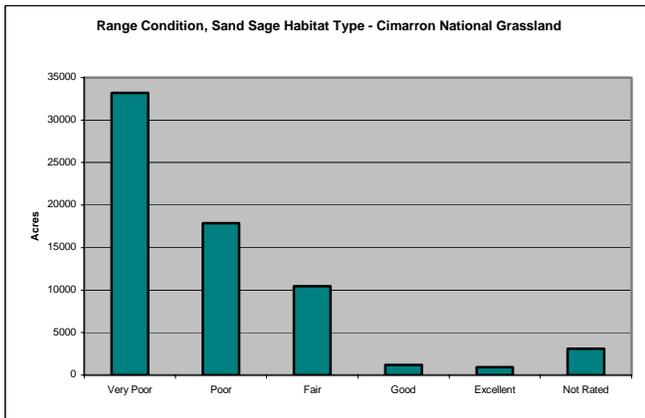
Cimarron National Grasslands (Cimarron), spanning nearly 108,540 acres in southwestern Kansas, is characterized by a riparian and two range ecosystems.

Riparian - the most productive, yet smallest of the three ecosystems (10 percent) is found within the Cimarron River watershed on deep, well-drained soils. Over the past 100 years, riparian areas in this watershed have been altered by agricultural practices, mining operations, and urban development. These activities have impacted the soils, hydrology and vegetation found of the watershed. Although this ecosystem is the most productive of the three, riparian corridors are at risk from tamarisk (salt-cedar) invasion.

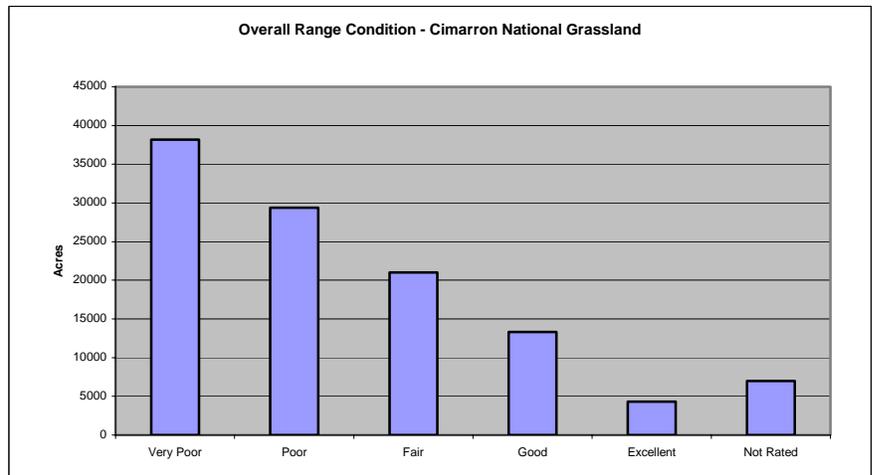
Sandsage Prairie - the largest (60 percent) and least productive ecosystem on the Cimarron. Today, the very sandy and highly erosive soils of the sandsage prairie are able to support only minimal herbaceous perennials. This absence of plant cover is attributed to prolonged periods of drought compounded by the effects of the “Dust Bowl”. In addition, sagebrush eradication projects conducted in the early 1980s further impacted soil stability and native plant communities of this ecosystem.

Short-grass Prairie – the second largest (30 percent) and second most productive ecosystem on the Cimarron. Short-grass prairie supports a mix of warm season, native perennial grasses.

For the Cimarron, the current condition ratings of the two range ecosystems (sandsage and short-grass prairies), and the overall condition of the range are represented in the three charts that follow:



During development of the Environmental Assessment (EA) for the Range Allotment Management Plan (RAMP) for the Cimarron (September 2001), these condition ratings were related to seral stages for both range ecosystems. From this EA, the estimated ecological classifications used were as follows:



<u>Range Ecosystem</u>	<u>Seral Stage</u>	<u>Equivalent Condition Classification</u>	<u>Percentage of Total</u>
Shortgrass Prairie	High Seral	Excellent/Good	45%
	Mid Seral	Fair/Poor	45%
	Low Seral	Very Poor	10%
Sand Sage Prairie	High Seral	Excellent/Good	4%
	Mid Seral	Fair/Poor	47%
	Low Seral	Very Poor	49%

Comanche National Grasslands (Comanche), located in southeast Colorado (435,980 acres) lies between the Central and Southern Great Plains. Moving from north to south, the Comanche is characterized by rolling loamy plains of short-grass prairie supporting a vegetation community dominated by blue grama-buffalo grass. This then transitions to piñon-juniper woodlands found along dissected terrain as the plains break into canyons and tablelands. Further south, sandy and deep sandy plains support short- and mid-grass prairie vegetation where sandsage-bluestem and bluestem-blue grama dominate. Woody draws, riparian areas and trees are important sites for providing structural diversity and nesting habitat for raptors. For this unit, the number of acres, by seral stages, in both the loamy plains and sandy/deep sandy plains habitats are represented in the following charts.

Table 2. Definitions of Loamy Plains Seral Stages Comanche National Grasslands

<u>Seral Stage</u>	<u>Definitions</u>
Early	Recently disturbed sites dominated by annuals
Low Intermediate	Blue grama occurs at moderate cover and frequency
High Intermediate	Increased dominance of blue grama with decreased species diversity
Late	Blue grama occurs at high cover and frequency

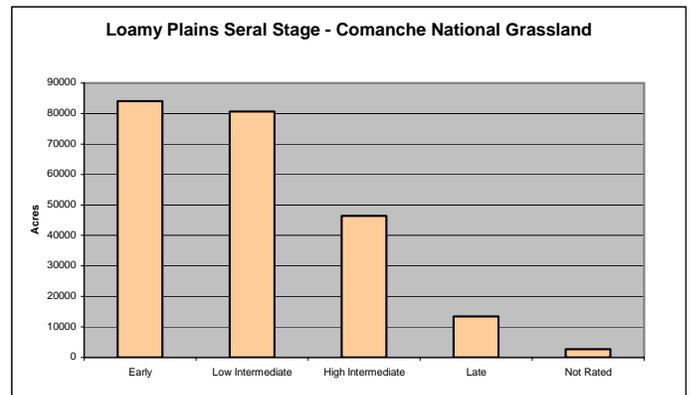
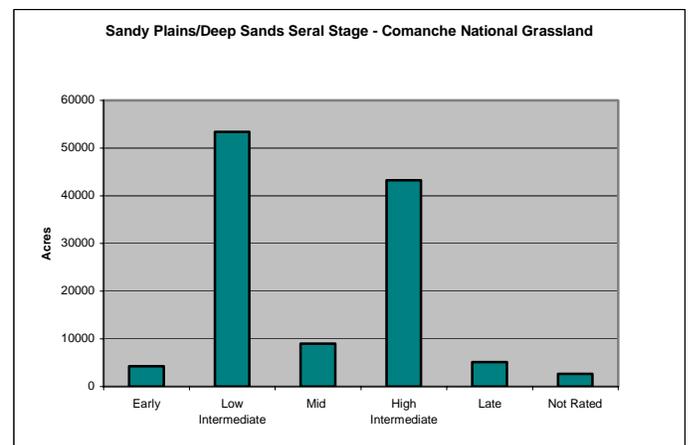


Table 3. Definitions of Sandy Plains/Deep Sands Seral Stages - Comanche National Grasslands

<u>Seral Stage</u>	<u>Definitions</u>
Early	High abundance of sandsage and active soil movement through wind erosion
Low Intermediate	Represents a forb and grass-dominated plant community of early seral species with lower cover and frequency of sandsage
Mid	Increase in buffalo grass and blue grama with decrease in sand dropseed and sandsage
High Intermediate	Sites dominated by perennial grasses
Late	Sites with high cover and frequency of blue grama



Management Indicator Species (MIS)

An internal review of MIS Trend was conducted in March 2002. From this review it was clear that implementing the MIS concept to assess the effects of species from a Forest and/or Grassland management alone can be difficult. This is largely due to the wide-ranging nature of some species and their ability to populate areas both within and outside of Forest or Grassland (public land) boundaries. Further complicating the situation is the presence of intermingled or checker-board land ownership patterns associated with these public lands. Under these circumstances, conducting monitoring studies to assess population trends often requires permission to access private inholdings, which may be difficult to obtain. This can effectively limit monitoring to public lands alone, which inhibits the collection data needed to determine meaningful population trends. The review concludes that wide-ranging species need to be monitored at the scale appropriate for their population.

A summary of population and habitat trend for MIS associated with PSICC-managed lands can be found in Table 5. The column labeled “*Usefulness as MIS*” shows the results of the assessment conducted during the MIS review of each species usefulness as a management indicator of Forest and/or Grassland authorized activities.

Table 4. Management Indicator Species (MIS) Review (Ryke and Wagner, March 2002)

PSICC Unit	Population Trend	Habitat Trend on PSICC	Usefulness as MIS
Comanche National Grasslands			
Antelope	Upward	Stable	Poor
Bewick’s wren	Stable	Stable	Poor
Black-tailed jackrabbit	Cyclic, Downward	Stable	Poor
Black-tailed prairie dog	Upward	Stable	Poor
Bobcat	Downward	Stable	Poor
Burrowing owl	Downward, Stable	Downward	Fair
Cassin’s sparrow	Stable, Downward	Downward	Fair
Cliff swallow	Upward	Stable	Poor
Ferruginous hawk	Stable	Stable	Fair
Great horned owl	Stable	Stable	Poor
Lesser prairie chicken	Cyclic, Downward	Stable	Fair
Lewis’ woodpecker	Downward	Downward	Fair
Long-billed curlew	Downward	Stable	Fair
Mule deer	Upward	Stable	Poor
Northern oriole*	Stable	Downward	Poor
Scaled quail	Cyclic, Downward	Stable	Poor
Turkey	Upward	Downward	Poor
Cimarron National Grasslands			
Black-tailed prairie dog	Upward	Stable	Poor
Bobwhite	Cyclic	Stable	Poor
Burrowing owl	Upward	Stable	Fair
Cassin’s sparrow	Cyclic	Downward	Fair
Lesser prairie chicken	Cyclic, Downward	Downward	Fair
McCown’s longspur	No Data	Stable	Poor
Mississippi kite	Downward	Stable	Poor
Mourning dove	Cyclic	Stable	Poor
Mule deer	Stable	Stable	Poor
Northern oriole*	Stable	Downward	Fair
Red-headed woodpecker	Stable	Downward	Fair
Scaled quail	Cyclic, Downward	Stable	Poor
Turkey	Cyclic	Downward	Poor
White-tailed deer	Stable	Stable	Poor

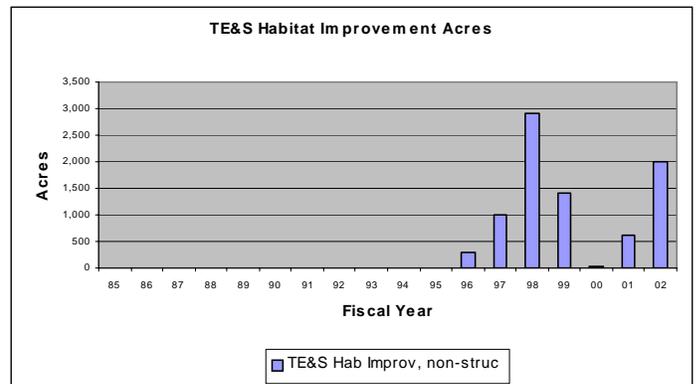
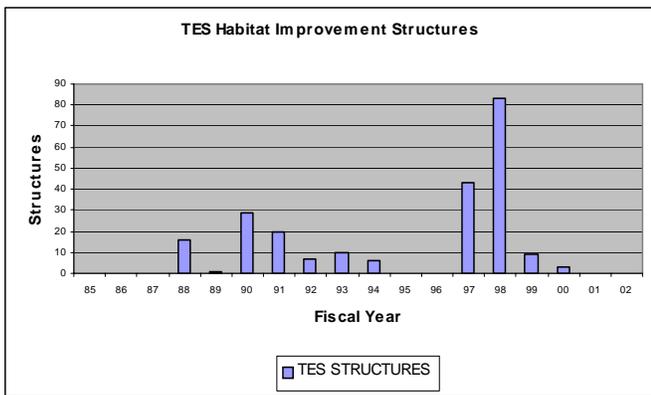
PSICC Unit	Population Trend	Habitat Trend on PSICC	Usefulness as MIS
Pike & San Isabel National Forests			
Abert's squirrel	Stable, Upward	Downward	Fair
Beaver	Stable	Downward	Poor
Bighorn sheep	Stable	Stable	Poor
Black-throated gray warbler	Upward	Stable	Poor
Brook trout	Downward	Stable	Fair
Elk	Upward	Stable	Poor
Greenback cutthroat trout	Stable	Stable	Fair
Green-tailed Towhee	Stable	Stable	Poor
Lewis' woodpecker	Downward	Downward	Fair
Mallard	Upward	Stable	Poor
Mountain bluebird	Upward	Downward	Poor
Mule deer	Upward	Downward	Poor
Northern three-toed woodpecker	Downward	Downward	Fair
Peregrine falcon	Upward	Stable	Fair
Pine marten	Stable, Upward	Stable	Poor
Turkey	Stable, Upward	Stable	Poor
Virginia's warbler	No Data	Stable	Poor
Water pipit	No Data	Stable	Poor
Wilson's warbler	Stable	Downward	Fair
Yellow-bellied sapsucker	Stable	Downward	Fair

*Northern oriole was rated as Fair in terms of a MIS for the Cimarron due to large blocks of contiguous habitat represented along the riparian corridor of the Cimarron River. On the Comanche, the scattered populations occurring in marginally suitable habitat, making population trend studies difficult, rates this species as a poor MIS.

The two main conclusions of the MIS review conducted in 2002 were: 1) population trend cannot feasibly be monitored at the project scale for any of the MIS listed in the Plan; and 2) there are very few MIS species where population trend changes can be related back to a cause-and-effect relationship of Forest and/or Grassland management. The complete MIS review is on file at the Supervisor's Office in Pueblo.

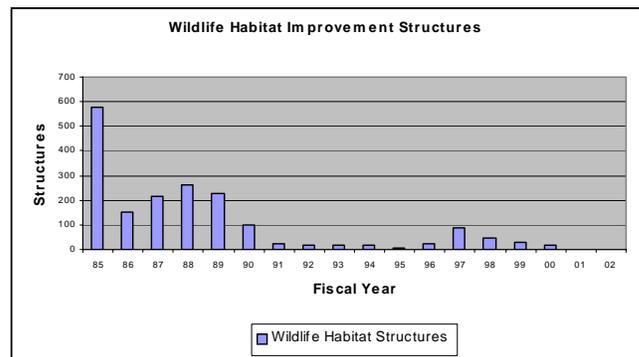
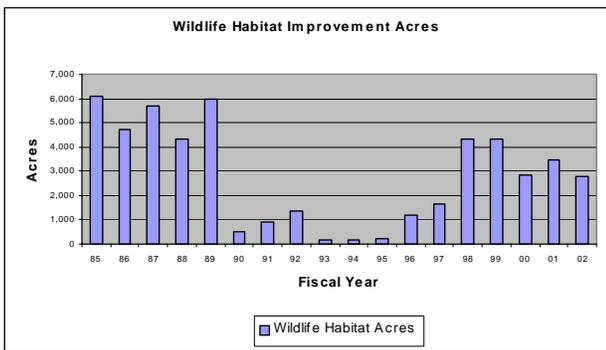
Threatened, Endangered and Sensitive (TES) Species – Emphasis continues to focus on completing inventories to establish baseline species population and distribution information. Habitat improvement

has primarily involved work necessary to support reintroduction of the greenback cutthroat trout and the peregrine falcon. Prescribed burning has been used to restore ecosystem structure and composition



for both Forest and Grassland TES species. Partnerships are an important part of achieving these accomplishments. Due to the importance of TES species, the Plan's goals are to maintain the ecological integrity of the systems (habitats) required to support these species, with increased emphasis on protecting biological diversity. The two charts show changes in the number of TES habitat structures and the acres of habitat improved from 1985 through 2002.

Habitat Modification and Improvement – Wildlife, fish and rare plants budgets have been slowly, but steadily increasing since 2000. While the number of improvement acres and structures has remained relatively stable, additional resources have increased the effectiveness of biotic inventories and habitat assessment capabilities. In addition, the way improvements are counted and funds are allocated has changed several times over the last few years, making direct comparisons difficult. The following two charts depict the approximate accomplishments from 1985 to 2002. With the shift to ecosystem management, better wildlife management decisions at the landscape level are possible. The new information will support better project designs in the future. Partners are now an important source of funding for projects, although more partnership money is available than PSICC funds can match and utilize. The amount of project work has nonetheless begun to increase in recent years. On the Forests and Grasslands, a key source of funding comes from other programs seeking expertise to mitigate adverse effects on wildlife.



Riparian and Aquatic Assessments

Habitat Trends – Aquatic and riparian resources were described in the FEIS for the Plan. In 1997 and 2002, riparian area inventories and condition assessments of 6th level watersheds on the PSICC were conducted. From these data, watersheds were categorized into three condition classes. Table 5 summarizes the percentages of each of these classifications on the PSICC in both 1997 and 2002.

Table 5. Watershed Acres (%) by Condition Class in 1997 and 2002

Unit	Class I (%) Pristine		Class II (%) Moderately Impacted		Class III (%) Severely Degraded	
	1997	2002	1997	2002	1997	2002
Pike National Forest	2	2	51	36	47	62
San Isabel National Forest	5	5	66	66	29	29
Cimarron National Grasslands	0	0	60	60	40	40
Comanche National Grasslands	0	0	87	87	13	13

The results of this work indicate a wide range of watershed and riparian conditions on the PSICC. It is not surprising that the majority of watersheds are rated as Class II – moderately impacted, indicating that management activities have altered the lands managed by the PSICC, both in the past and present.

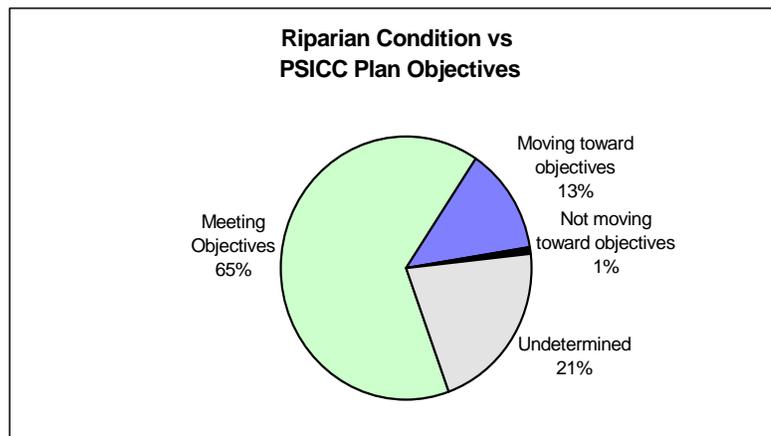
Probably the most revealing aspect of this analysis is the relatively high percentage of Class III watersheds on the Pike. This is attributed to both historic and present effects of elevated erosion and resulting sedimentation. Much of the Pike is located on soils composed of highly erodible, poorly developed granitics, which contribute large amounts of sediment into stream systems along the Front Range. Although some sedimentation occurs naturally, the presence and use of roads and trails, road maintenance activities, off-road uses, flow modifications, and recent wildfires have increased the erosion

potential and elevated sediment deposition into affected and downstream watersheds. As stated previously, erosion and sediment caused from mining operations also occurs on the Pike, but to a lesser degree than on the San Isabel. The PSICC is currently assessing the condition of all watersheds to determine changes.

Although almost one third of the San Isabel falls into Class III, most of these watersheds have been heavily impacted by historic mining activities and to a lesser extent by current management activities. The toxic effluent from mine audits has been addressed, but technology is still limited for their treatment.

The Grasslands presents a different picture than the Forests. Because the majority of these public lands are influenced by management activities, pristine watersheds do not exist. Most of the watersheds on the Grasslands fall into Class II, and the percentages of Class III watersheds vary between the Cimarron and the Comanche. Grasslands watersheds with permanently flowing streams have been altered by municipal and agricultural developments. Water quality and quantity in the Cimarron River and its tributaries has been seriously compromised due to upstream dewatering and agricultural runoff. Stream systems with headwaters originating on or adjacent to the Grasslands show evidence of excess sedimentation caused from increased erosion largely due to nutrient input from cattle and vegetation conversion from native to nonnative species.

The following chart illustrates how riparian conditions across the PSICC are meeting the objectives stated in the Plan.

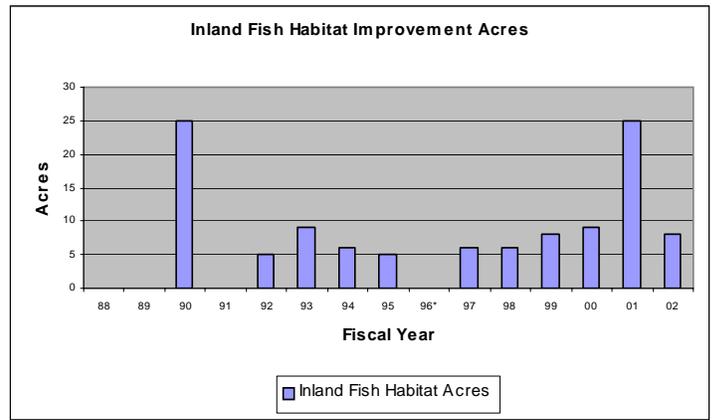
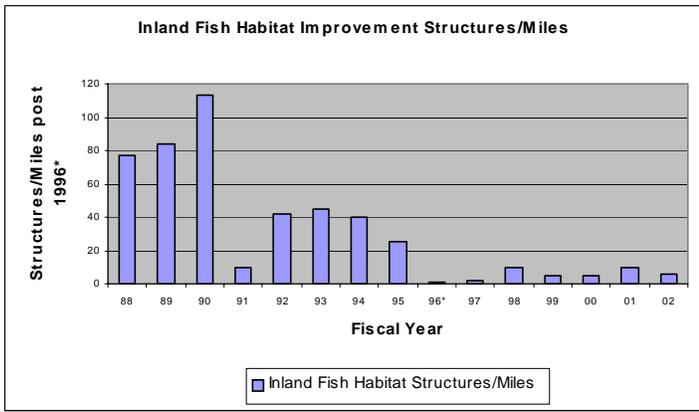


Habitat Modification and Enhancement on the PSICC – Impacts to riparian and aquatic ecosystems are derived from a number of human-related activities, with sedimentation from erosion causing the most extensive amount of damage to riparian areas.

Because sedimentation can cause stream channel imbalance, increased water temperatures, reduction in aquatic habitat, and other indirect effects, in-stream channel and riparian re-establishment projects have focused on restoring the function and processes needed for sustainable habitat for aquatic and riparian-dependent species.

Most human-caused erosion is related to ground-disturbing activities, such as road and trail construction and maintenance, livestock grazing, mining, and timber harvest. Other direct or indirect consequences from human-related activities that currently effect aquatic and riparian ecosystems include removal of and/or changes to riparian vegetation and associated increases in water temperatures, mining effluent releases, and stream flow modifications. Recent adaptations of traditional habitat improvement methods have led to an increase in the effectiveness of stream enhancement projects. As stated above, more emphasis is placed on treating causes of dysfunction, rather than the symptoms.

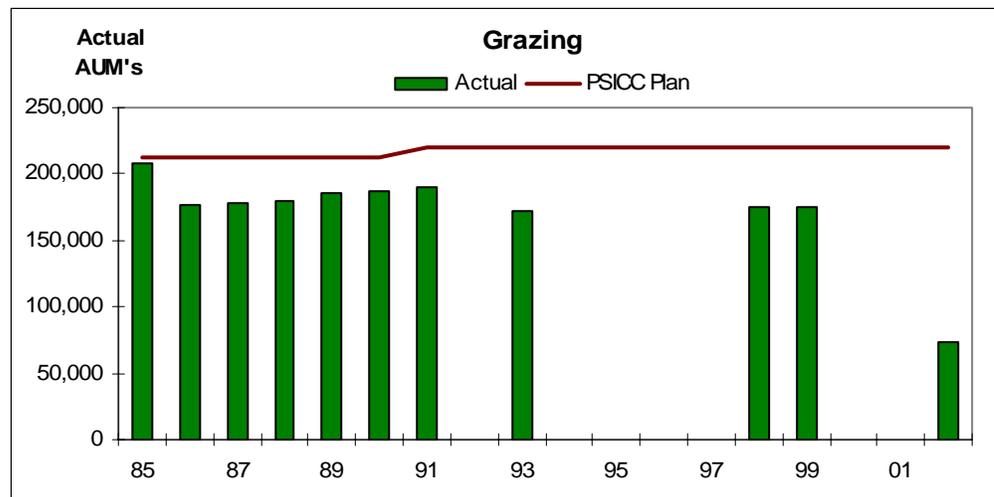
The charts below depict the aquatic habitat accomplishments from 1985 through 2002. In 1996, accomplishment reporting for streams changed from ‘number of structures’ to ‘miles improved’. This change is evident by looking at the chart showing habitat improvement structures/mile. While it appears that accomplishments have decreased, actual improvements have remained relatively stable.



Range Condition and Use

Most of PSICC’s grazing program, in terms of Animal Unit Months (AUMs) and allotments occurs on the Grasslands. As shown in the *Grazing* chart below, grazing levels have been relatively stable, with moderate reductions, rather than the increase predicted in the Plan. The 2002 grazing season is the exception to this statement.

Severe to extreme drought conditions prevailed across the PSICC for most of the 2002 grazing season with few exceptions. As a result, livestock numbers were reduced and/or grazing seasons delayed or shortened. An example of this is that the ‘normal’ grazing season on the Cimarron is May 1



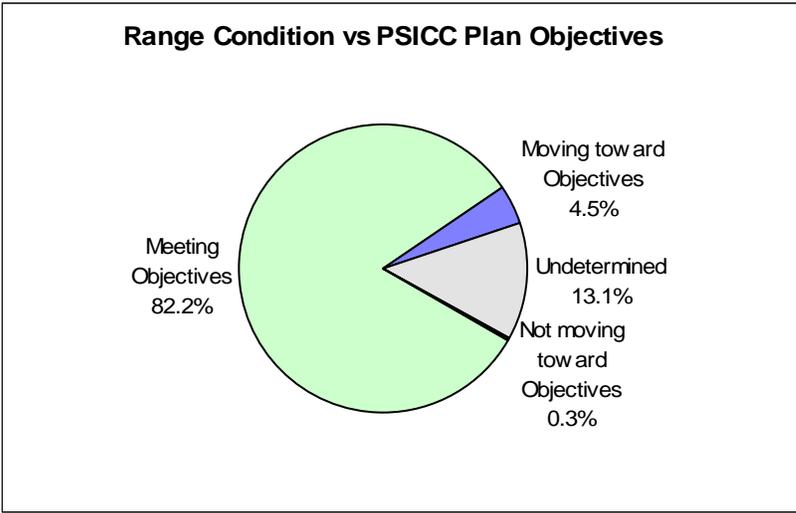
through October 31. In 2002, livestock were turned out on May 6 and removed on June 30.

On the Timpas Association (Comanche), all permittees started with a 15 percent reduction in numbers. Nearly all livestock were removed from the Comanche by the end of July.

On allotments on the Pike and San Isabel, some permittees sold all of their cattle before the start of the grazing season; other permittees ran fewer numbers and grazed their allotments for a shortened season. There were very few permittees able to graze full numbers for the full season.

Annual monitoring indicates that range conditions across the entire PSICC are generally meeting or moving toward Plan objectives, as shown in the *Range Condition* chart below.

Allotment Management Planning – In accordance with the Rescission Act of 1995, the PSICC and other National Forests have established a schedule for completing Environmental Assessments (EAs) for each of their grazing allotments. The PSICC’s schedule initially focused on the Grasslands, and then moved to the Forests, beginning with those Districts on the Pike. Allotments on the San Isabel are scheduled for later years, but prior to the 15-year timeframe for completing all 276 allotments.



To date, the PSICC has completed EAs on approximately 84 percent or more than 230 of the 276 allotments. Another seven allotments are scheduled to be done in 2003, bringing the total to 86 percent completion. Following 2003, seven years will remain in the schedule to complete the remaining 14 percent.

Allotments on the Grasslands are managed through four grazing associations and one grazing district, which means that an individual grazing agreement for an association covers many allotments. Allotments managed by the Kim, Campo and Pritchett grazing associations, and the Timpas grazing district, located on the Comanche, have been reviewed and decisions on management and renewal of the agreements have been made. AMPs on the Comanche are still being developed. The Cimarron Association EA was signed in January, 2002, and the AMP was signed in September, 2002. These analyses did not result in any changes to the original direction in the Plan.

Analysis supporting this work has provided valuable new information on conditions found in the allotments. The key findings have been:

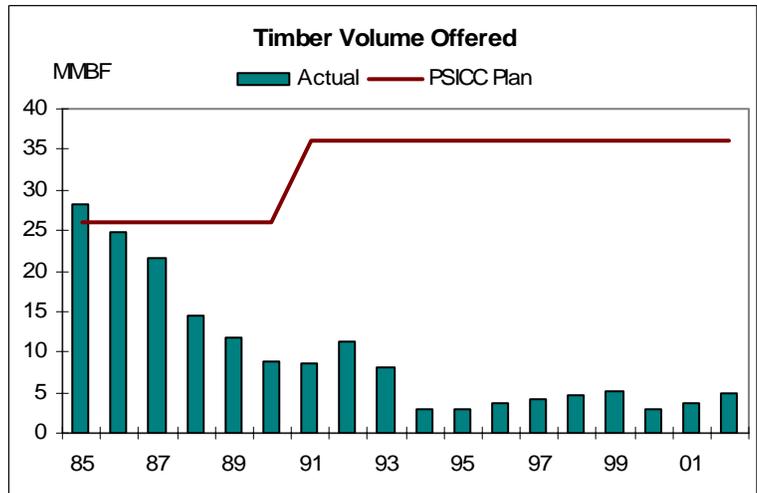
- Range condition is generally meeting Plan objectives – largely due to improved management of the vegetative resources;
- Some riparian areas are still moving towards Plan objectives and have required a modification in management to improve them to desired levels; and
- Some resource conditions require improvement, and during Plan revision, some modification of Standards and Guidelines may be needed to better address certain habitat-related issues. However, major land allocations in the Plan are appropriate and the overall framework established by the Plan appears to be suitable.

Forest Condition and Use

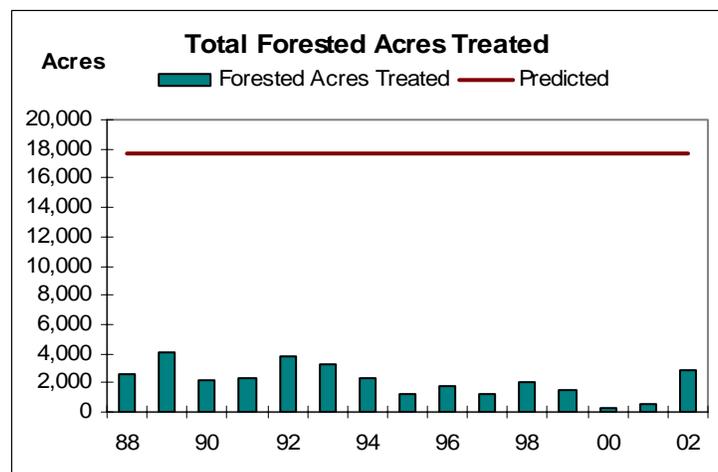
The Plan established an allowable sale quantity of 37 million board-feet (mmbf) per year; with timber offer targets were gradually approaching that level as progressively more acres were put under management. In 1984, approximately 1,065,220 acres were considered suitable for commercial timber harvest. Much of the timber sold was being used for fuel wood. In addition, the economics of harvesting timber on PSICC were such that, once the below-cost issue began affecting policy, funding for the commercial timber program was curtailed to a level well below Plan projections. By FY94, the timber

program had declined to historically low levels, with most of the volume harvested still being sold for fuel wood.

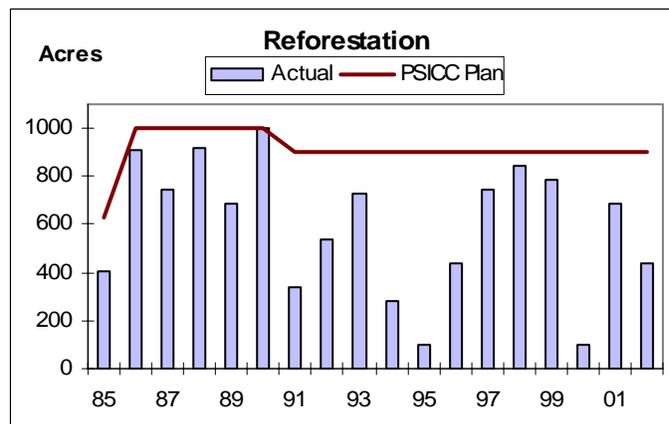
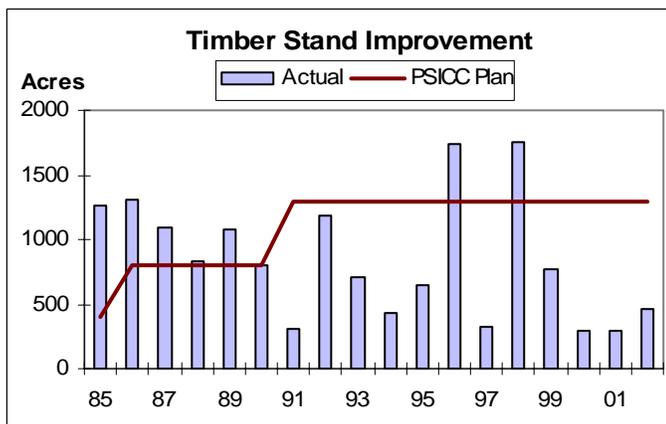
As shown in the following chart, the treatment rate of forested acres by all types of projects designed to modify forested vegetation, has not kept pace with predictions. The *Timber Harvest History* table, in Appendix A of this report, displays acres harvested and cutting method on the PSICC since 1987. The net effect is that the situation as described in the Plan has not substantially changed, except that most of the trees are about 21 years older.



Forest management on the PSICC is not keeping pace with the growth rate of the trees. This unmanaged growth, coupled with recent drought conditions, has accelerated insect and disease infestations, and has produced an ominous fuels build-up. A situation of increasing severity exists, particularly along the Front Range on the Pike, where the Buffalo Creek, Hi Meadow and Hayman fires occurred. Steps are being taken to: 1) build a new and active forest management program; 2) seek possible markets for the types of smaller-sized wood products whose removal would best benefit forest health; and, 3) use timber sales as a tool to achieve natural resource management goals. This is discussed further in the **Fuel Treatment** section of this report.



Reforestation and timber stand improvement activities have been variable over time, as is shown in the *Timber Stand Improvement* and *Reforestation* charts that follow. Funds for these activities are primarily obtained from timber sale revenues. The more recent increases, beginning in FY96, are due to restoration efforts after the Buffalo Creek fire.



Fuel Treatment

Treatment of fuels has increased dramatically in recent years in response to the fact that fire suppression throughout the past century has caused major fuels build-ups that increase the risk of catastrophic fires. As a result, fuel treatment activity levels are increasing in an attempt to deal with this situation.

In May 1996, the Buffalo Creek fire burned over 12,000 acres of forested land (ponderosa pine/Douglas-fir) on the Pike (South Platte District). This wind-driven fire consumed most of this acreage and six homes in a single afternoon. During June 2002, the Hayman fire burned nearly 137,000 acres of similar habitat primarily on the South Platte District. Also a wind-driven fire, the rate of spread within the first day of the burn was alarming. The Hayman fire caused community evacuations and home losses, and fire monitoring showed that the immediate impacts of this fire (smoke, particulates and changes in weather conditions) were felt all along the Front Range, including the Denver-metro area and for hundreds of miles to the north and east. As discussed in the **Soils, Aquatic and Riparian** sections of this report, accelerated erosion and sediment deposition occurred within the watersheds associated with these two large fires. This is an issue for wildfires of any size, but particularly so when fires occur on highly erodible soils as is the case for these two large burns. Monitoring erosion and sediment movement following the Hayman fire showed the impact to downstream aquatic and riparian habitat, including several major reservoirs that serve as primary water storage facilities for Denver and its suburbs.

In order to meet the needs of forest health, wildland fire hazards, and firefighter and public safety, the Red Zone Strategy was developed. Through this strategy the PSICC is working collaboratively with other agencies and local communities to treat highly developed areas and those at the highest risk for insect and disease outbreaks and/or wildland fire.

The PSICC began preparing a fire management amendment to the Plan intended to provide additional guidelines for ecosystem restoration. Given the backlog of restoration needs facing the PSICC, this amendment would provide more flexibility in responding to wildfire situations, and establish priorities to restore natural fire regimes, guide future wildfire prevention work, and assure that PSICC's limited resources are being directed to realize the greatest benefit. Completion of this amendment has been indefinitely delayed due to lack of resources, and because fuel treatment strategies for the Front Range were addressed during 2002, in conjunction with adjoining forests. The Front Range Strategy for fuels treatment and other work accomplished to prepare a Plan amendment will be incorporated into the Plan Revision process.

SOCIAL COMPONENTS

Recreation

The PSICC has one of the heaviest recreation workloads in Region 2. Much of this stems from its location near the Denver/Colorado Springs/Pueblo metropolitan areas. The leading type of recreation is pleasure driving, using automobiles on highways or off-highway vehicles on lower-standards roads. The Visitor Use data, displayed in the following charts, was compiled in FY96. In FY01, a change was made in collecting and reporting Recreation and Wilderness related data (visitor use days to visits), by implementing the Final National Visitor Use Monitoring (NVUM) project. Survey data from the FY01 report has been compiled, and pertinent monitoring information as required by the Plan is displayed in the following tables. From these data, recreation use on the Forest for FY01 was estimated at 3.87 million visits, of which 4.4 million visits were to designated sites, and nearly 67,000 were to wilderness.

NVUM will be the standard monitoring protocol applied once every four years, to better understand the use, importance of and satisfaction with National Forest System recreation opportunities. Correlations can be made between Visitor Use (reported in days) and NVUM. A complete copy of the FY01 NVUM report is available for review.

The following chart (*Visitor Use by Category*) displays combinations of visitor uses categories (data compiled in FY96), whereas Table 6 lists activity types and the percent participation (from the FY01 NVUM report). From the FY01 data, the top five recreation activities were viewing natural features, relaxing, viewing wildlife, driving for pleasure, and hiking/walking. While direct comparisons between the FY96 data with those collected in FY01 may not always be possible (categories or activities are not perfect matches in some cases), it is interesting to note that viewing natural features, driving for pleasure, and hiking/walking (mechanized travel, viewing and hiking) still rank as the highest of those activities offered forest visitors. The FY01 report also shows an increase in participation in the activities of wildlife viewing, nature study and gathering natural products (Fish/Wildlife/non-consumptive visitor use).

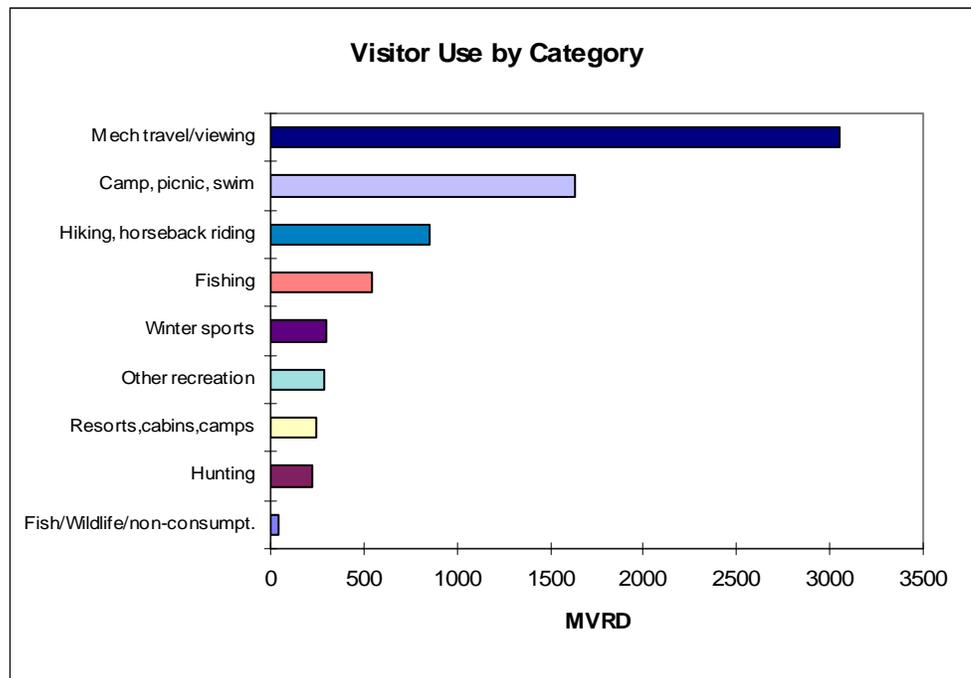


Table 6. PSICC Activity Participation by Primary Activity (from FY01 NVUM report)

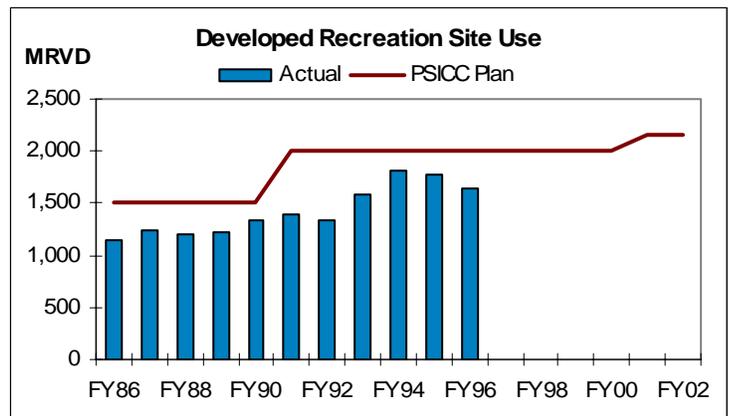
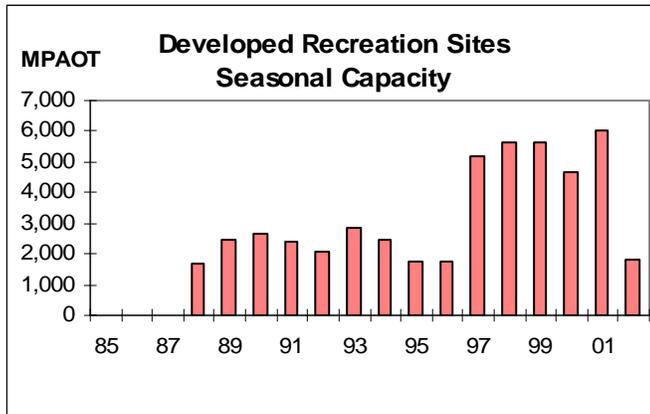
Activity	Percent participation	Activity	Percent participation
Camping in developed sites (family or group)	8.6	Off-highway vehicle travel (4-wheelers, dirt bikes, etc.)	18.0
Primitive camping	4.8	Driving for pleasure on roads	46.1
Backpacking, camping in unroaded areas	2.6	Snowmobile travel	0
Resorts, cabins & other accommodations on FS managed lands (private or FS run)	10.1	Motorized water travel (boats, ski sleds, etc.)	0.2
Picnicking and family day gatherings in developed sites (family or group)	16.9	Other motorized land/air activities (plane, other)	0.7
Viewing wildlife, birds, fish, etc., on NFS lands	58.1	Hiking or walking	43.9
Viewing natural features such as scenery, flowers, etc., on NFS lands	69.6	Horseback riding	1.6
Visiting historic and prehistoric sites/area	9.3	Bicycling, including mountain bikes	3.1
Visiting a nature center, nature trail or visitor information services	16.1	Non-motorized water travel (canoe, raft, etc.)	1.4
Nature study	5.3	Downhill skiing or snowboarding	5.4
General/other – relaxing, hanging out, escaping noise and heat, etc.	57.2	Cross-country skiing, snowshoeing	0.9

Activity	Percent participation	Activity	Percent participation
Fishing – all types	11.1	Other non-motorized activities (swimming, games and sports)	9.7
Hunting – all types	2.4	Gathering mushrooms, berries, firewood, or other natural products	4.3

Developed Recreation

Many recreation visits occur at developed facilities; particularly campgrounds (refer to *Developed Recreation Site Use* chart). In the past, these facilities were operated primarily by Forest Service

personnel, but are now under concessionaire management. The increase in developed site capacity beginning in FY97 (refer to *Developed Recreation*



Sites Seasonal Capacity chart) is primarily due to the addition of developed trailhead parking areas. A small amount of capacity was lost during 2002, due to site closures for safety (some fire-related), dredging a lake, and construction (approximately 60,000 reduction).

The FY01 NVUM report polled recreation visitors about the types of constructed facilities and special designated areas they used during their visit. These data are displayed in Table 7. The five most used facilities/areas were: FS roads, non-motorized trails, scenic byways, picnic areas and designated wilderness areas.

Table 7. Percentage use of facilities and specially designated areas on PSICC (from FY01 NVUM report)

Facility/Area Type	Percent indicating use (FS visits)	Facility/Area Type	Percent indicating use (FS visits)
Developed campground	5.7	Interpretive site	3.7
Swimming area	0.6	Organization camp	1.2
Hiking, biking or horseback trails	23.7	Developed fishing site/dock	2.6
Scenic byway	19.6	Designated snowmobile area	0.7
Designated wilderness	8.4	Downhill ski area	5.4
Visitor center, museum	3.2	Nordic ski area	0.7
Forest Service office or other info site	1.2	Lodges/resorts on NFS land	2.1
Picnic area	11.3	Fire lookouts/cabins FS owned	0.0
Boat launch	0.5	Designated snow play area	0.7
Designated off-road vehicle area	7.2	Motorized developed trails	2.9
Other forest roads	24.0	Recreation residences	1.1

Recreation Facilities Backlog – The PSICC has a strong recreation component to its overall program. It is also “urban” in character because more than 2 million people live within an easy weekend driving

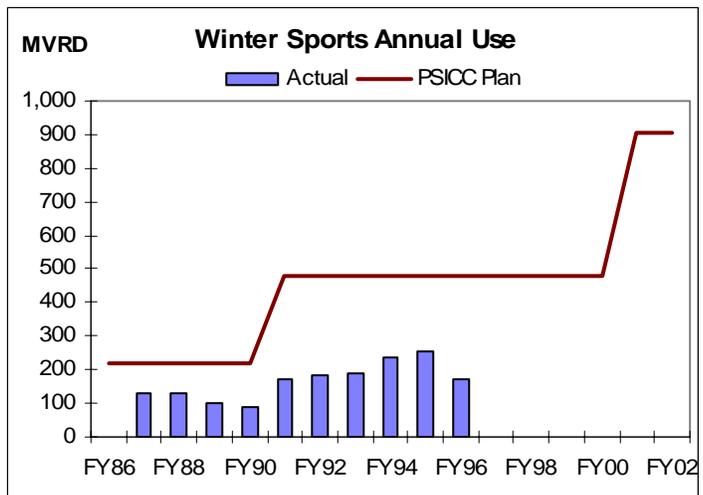
distance. Many of the developed campgrounds were built in the 1960s, and are deteriorating. Operation and maintenance dollars have not kept pace with this deterioration, creating an increasing the backlog of needed work.

The following summary of recreation facilities maintenance backlog needs was captured from the Infrastructure (INFRA) database:

Recreation facilities maintenance backlog: \$4,287,000
Trail maintenance backlog: \$6,715,000

Winter Sports

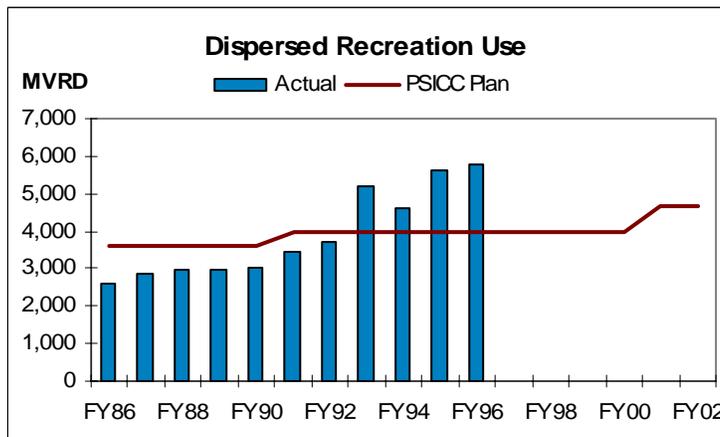
The PSICC has two operating ski areas: Ski Cooper and Monarch Resort. Four areas that were in operation when the Plan was approved are now closed: Pikes Peak, Geneva Basin, Conquistador (aka Hermit Basin; aka Mountain Cliff) have all been reclaimed; and Cuchara Valley Resort (permit revoked in 2002 and improvements are to be removed). Quail Mountain, southwest of Leadville, previously identified as a possible ski area development, is not been permitted for use. The current capacity for downhill skiing appears to be greater than the demand at most of the areas. The following chart displays those data involving winter sports (primarily involving ski areas) through FY96.



In the FY01 NVUM report, snowboarding was included with skiing; cross-country skiing and snowshoeing were listed as like activities, as was snowmobile travel. The percentage of visitors participating in these activities can be found in Table 6.

General Forest Areas

Dispersed Recreation - includes all activities that occur outside of developed facilities. Because of the proximity to the Denver/Colorado Springs/Pueblo metropolitan areas, the PSICC receives a large amount of dispersed recreation use (refer to the *Dispersed Recreation Use* chart which shows actual use through



FY96). Dispersed recreation constitutes the largest share of total recreation use. In recent years, visitor levels have exceeded projections made in the current Plan. The FY01 NVUM report lists many activities that fall into the Dispersed Recreation Use category (refer to Table 6). As mentioned in the introduction to the Recreation section, the top five recreation activities were viewing natural features, relaxing, viewing wildlife, driving for pleasure, and hiking/walking – all of which can be considered Dispersed Recreation.

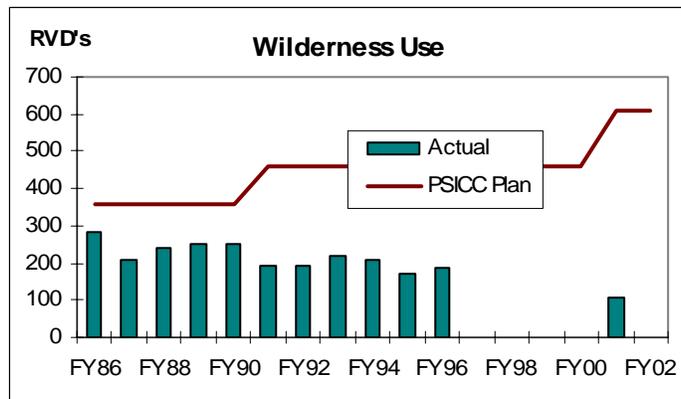
Immediately following Plan approval, the PSICC recognized the importance of implementing the travel management direction in the Plan. The White Arrow Program has been used to restrict motorized travel to designated roads and trails. However, the PSICC is converting to the Colorado Standard Signing with two Districts completed. The job of maintaining system roads and trails, and obliterating and rehabilitating illegal or unneeded routes continues to be a major workload.

Wilderness Recommendations – Four Wilderness Study Areas (WSAs) and one Further Planning Area (FPA) were reviewed during development of the Plan and suitability findings were made in the Record of Decision of the FEIS. Table 8 lists those areas and their current status. In 1993, Congress designated four new Wilderness areas on the PSICC.

Table 8. WSAs Recommended in the Plan and Current Status

Area	Suitability	Designated Wilderness
Buffalo Peaks WSA	Yes – portions	Yes
Greenhorn Mountain WSA	Yes	Yes
Spanish Peaks WSA	Yes	Yes
Sangre de Cristo WSA	Yes – portions	Yes
Lost Creek Addition FPA	No recommendation made	Yes

Recreation Capacity Study – In response to concerns that certain areas on the PSICC were being unacceptably impacted by increasing visitor use, particularly those in Wilderness, a Forest-wide recreation capacity study was initiated in 1993. This study, completed in 1995, analyzed visitation and impact levels in comparison to Plan direction. Findings revealed that many areas were at or exceeding capacity on most of the Forest. Also, applications for outfitter-guide permits were increasing. In the highest overuse areas, outfitter-guide permits have been cut back, while in other areas no new permits were allowed. Steps are being taken to reduce public use in those problem areas as well. Ironically, even though Wilderness use has not been increasing (refer to the *Wilderness Use* chart), impacts to Wilderness areas were becoming more problematic due to concentrated use in certain areas. Routes for climbing the peaks



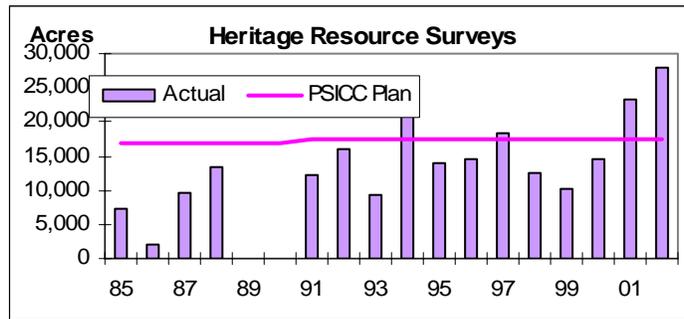
over 14,000 feet have become particularly popular and heavily used. As a follow-up to the study, selected high use areas are being monitored and managed more closely. Capacity refinements and use adjustments are being made as time and priorities allow. The FY01 NVUM report estimated wilderness use at 67,000 visits with an average stay of 1.6 days per visit (based on a 25.2 hour average length of stay).

This recreation capacity study also revealed that: 1) Management Area direction in portions of some Wilderness areas was mismatched with current uses; and, 2) certain Plan Standards and Guidelines had become out-of-date with the current theory regarding management of dispersed recreation use in Wilderness areas. These corrections will be made during in conjunction with Plan revision.

Heritage Resources

Cultural Resources Compliance Surveys/Inventories and Recorded Sites – Inventories are conducted in areas where ground-disturbing projects are planned; discovered sites are recorded and evaluated. In recent years, inventories have occurred on grazing allotments (primarily on the Grasslands) in support of allotment management planning, and for proposed large fuels reduction and vegetation management projects. To support the Front Range Fuels Strategy, inventories have focused on the Rampart Range and Manitou Park areas northwest of Colorado Springs. Landscape level inventories are underway in the southern half of the Wet Mountains and in the Arkansas Hills area northeast of Salida. Non-project related surveys have continued in areas thought to contain high densities of heritage resources.

These multi-year efforts include Picket Wire Canyonlands (a special Management Area with an extremely high density of archaeological sites), Pikes Peak (a National Historic Landmark), and the southern portion of the Arkansas Hills. In 2002, a study began of 30 historic buildings to judge their stabilization and maintenance requirements. The total acres inventoried and sites evaluated (including those newly recorded) are shown in Table 9. In FY01 and FY02, the PSICC exceeded both compliance inventory acreage and site recording targets due to the initiation of large-scale assessments related to National Fire Plan projects, and several large BAER projects.



Interpretation, Protection, Public Outreach and Accomplishments – This part of the program consists of interpreting non-vulnerable heritage sites for the public, protecting important historic resources against natural deterioration and vandalism, and offering public opportunities to participate in heritage resource management.

Interpretive efforts on the Grasslands have focused on the Santa Fe Trail, and the historic and prehistoric resources of Vogel Canyon, with more recent efforts directed at the Picket Wire Canyonlands. For the Forests, the focus has been on historic mining regions, railroad and homestead sites, primarily in the Chalk Creek, Twin Lakes, Boreas Pass, and Pikes Peak regions. Also, a program was initiated to develop interpretive media at historic rental cabins (a RecFeeDemo project).

Protection efforts in FY02 involved areas with known high densities of prehistoric sites including Picket Wire Canyonlands, Pony Park, and the Arkansas Hills. A total of 144 cultural properties were inspected to assess changing conditions and/or repaired.

Public outreach included six Passport In Time (PIT) projects such as paleontological excavations and archaeological site survey in the Picket Wire Canyonlands, and site surveys in the Aspen Ridge and Pikes Peak areas. PIT projects are designed to use volunteers to accomplish work that the PSICC could not do using appropriated funds.

Accomplishments in resources interpreted and protected, and in public outreach opportunities were down somewhat in FY02 due to the support provided to the Hayman wildfire emergency and other firefighting efforts. Also, the PSICC opened and placed on the National Reservation system one additional historic cabin (the Mingus Cabin) for public rental. A summary of accomplishments can be found in Table 9.

Table 9. Heritage Resources Accomplishments, 1994 – 2002

Heritage Activity	FY94	FY95	FY96	FY97	FY98	FY99	FY00	FY01	FY02	Totals
Heritage sites interpreted	10	18	10	16	40	12	24	14	9	153
Public participation projects	0	12	0	6	9	8	7	7	6	55
Number of properties (cumulative)	1,276	2,158	2,343	2,741	2,823	3,056	3,406	3,766	4,022	25,591
Heritage sites preserved & protected	10	0	45	50	69	156	174	152	144	800
Heritage sites evaluated	28	475	173	150	240	265	437	360	345	2,473
Resource facilitation projects	121	92	67	113	155	158	142	137	142	1,127
Inventory/acres surveyed	25,285	14,000	14,600	18,460	12,491	10,246	14,700	23,435	28,000	161,217

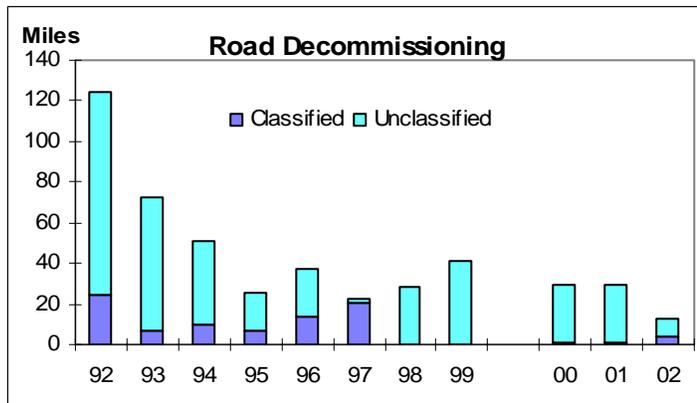
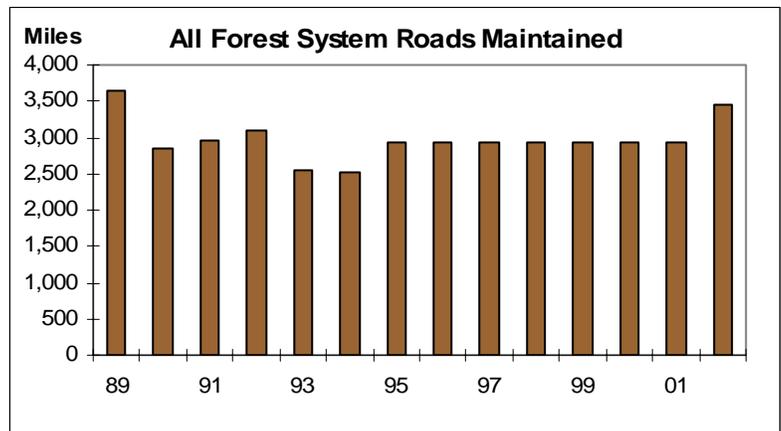
Visual Quality Objectives

Visual Quality Objectives (VQOs) are being maintained. Activities having the potential to adversely affect VQOs have been designed to avoid such effects. New methods of inventory and management for scenic quality have been developed, and will be used for Plan revision.

Transportation and Travel Management

The *All Forest System Roads Maintained* chart shows the total miles of roads identified as system roads (“classified”) that are available for public use. This use can vary from full use by the public with vehicles, to administrative use only by the PSICC and designated permittees, to walk-in use by the public on roads that are closed to vehicle use.

The reason for the apparent increase in road miles maintained in FY02 is that temporary roads serving oil and gas operations on the Grasslands were added to the system. Including these temporary roads better



reflects their actual nature and use. Normally, temporary roads are very transitory, and are decommissioned after use (e.g., after vegetation treatment is performed). Because many of the oil and gas roads are used for relatively long periods of time, and are accessible to the general public, the administrative classification for these roads was changed and their miles added to the system.

Additional emphasis is being placed on travel management. Deferred maintenance condition surveys have been performed on a set schedule, and the findings have been entered into a national database to allow for more accurate assessments of the overall maintenance backlog. Formal system roads and informal, user-created or non-system roads (“unclassified”) are being inventoried. A roads analysis will be performed to determine the long-term disposition of each route.

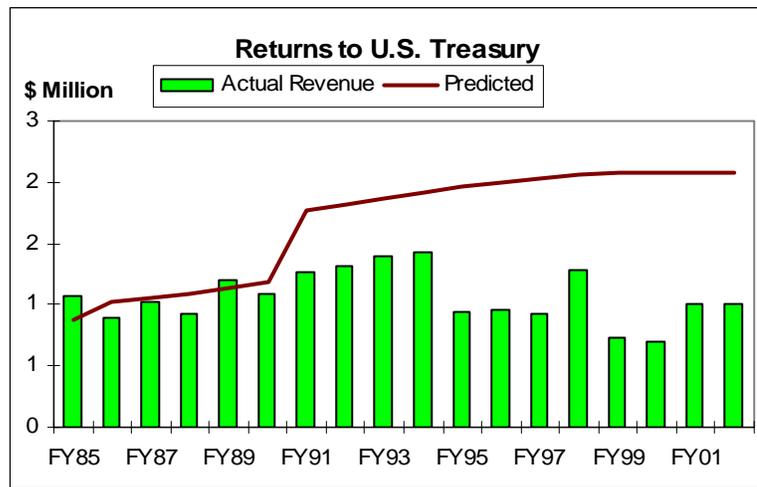
ECONOMIC COMPONENTS

Capital Investments

The Capital Investment Program (CIP) consists of two parts, one funded at the Regional level, and one funded at the Forest level. CIP used to be primarily for roads and general purpose timber and recreation use prior to FY92. After FY92, the emphasis shifted somewhat to include developed recreation areas and trail construction/reconstruction in addition to roads. PSICC's part of the CIP has been funded in the \$250,000 to \$500,000 range over the past years since 1991. The Regional CIP has been funded in the \$700,000 to \$2.3 million range, with the lowest funding in 1996 and the highest in 1992. As stated previously, the emphasis has shifted from roads in the early 1990s to developed recreation areas in the late 1990s.

Returns to U.S. Treasury

A wide range of activities generates revenues for the U.S. Treasury. These include special-use permits (ski areas, roads, water lines, power lines, outfitter-guides, recreation residences, etc.), grazing permits, fuel wood permits, Christmas tree permits, transplant sales, timber sales, and others. Revenues from oil and gas leases are not shown in the *Returns to U.S. Treasury* chart, but are included in Appendix B of this report.



Payments to Counties

In most cases, 25 percent of the revenues paid into the U.S. Treasury are returned to the counties within which the revenue-generating activities occurred. The flow of these funds to counties is shown in Table 10. The most dramatic change occurred on the Cimarron in 1987, when a number of oil and gas leases reverted to the United States. Revenues from those leases have declined in recent years as production has declined.

Table 10. 25% Fund Payments to counties by Proclaimed Units

Nominal Year Dollars					
Fiscal Year*	Pike	San Isabel	Comanche*	Cimarron*	PSICC Total
FY85	115,898	123,019	145,707	77,852	462,476
FY86	103,787	107,703	103,185	39,027	353,702
FY87	105,173	130,414	72,730	4,240,391	4,548,708
FY88	92,751	119,698	45,236	3,028,349	3,286,034
FY89	127,780	149,169	47,240	1,514,045	1,838,234
FY90	122,124	127,901	64,605	1,007,529	1,322,159
FY91	134,263	149,236	111,347	541,837	936,683
FY92	117,394	172,006	106,777	428,047	824,224
FY93	157,919	152,076	106,463	737,839	1,154,297
FY94	162,181	175,534	59,587	785,574	1,182,876

Nominal Year Dollars					
Fiscal Year*	Pike	San Isabel	Comanche*	Cimarron*	PSICC Total
FY95	91,038	134,596	117,975	503,049	846,658
FY96	94,520	142,053	221,394	627,538	1,085,505
FY97	92,591	120,173	632,708	170,706	1,016,178
FY98	157,857	149,073	71,530	473,494	851,954
FY99	92,481	90,829	0	0	183,310
FY00	94,249	73,177	0	0	167,426
FY01	127,424	180,922	71,617	516,309	896,272
FY02	142,743	183,219	72,637	983,052	1,381,651

* Note: Grassland revenues and payments are reported by calendar year rather than fiscal year.

Unit Costs and Efficiency – The PSICC as a unit has made tremendous progress toward improving customer service and reducing costs. Efficiencies have been gained through increased inter-agency cooperation and increased work with partners and volunteers.

Unit costs are extremely variable on a large diverse unit such as the PSICC. Average unit costs tend to oversimplify the complexity of natural resource and ecosystem management work. Since they do not accurately portray effectiveness, unit costs have not been summarized in recent years. It is possible to do so by dividing outputs by either program or project costs. Unit costs have limited utility in Plan monitoring due to: 1) the complexities of the budget allocation process; and, 2) the diverse nature of many projects. Unit costs may be of some value in relating programs on different National Forests, but are less useful within an individual unit.

AMENDMENTS TO THE PLAN

Existing Amendments

Existing amendments to the Plan are shown in Table 11. For several years following approval of the Plan, it was thought that changes in the timber harvest schedule had to be reflected as amendments. When court decisions clarifying the purposes of Land and Resource Management Plans eventually established that this practice was not required, amendments of this nature were discontinued.

Table 11. Summary of Amendments to the Plan

Amendment No.	Date Approved	Summary
1	09/23/85	Clarified intent of Plan implementation schedules (Appendices A, C & D) prepared as part of annual Forest Plan of Work. Rescinded by Amendment No. 9.
2	07/24/87	Corrected omission and indicated that bridge construction and reconstruction activities under Management Activity L16 – L18 (Local Road Construction and Reconstruction) are included.
3	07/24/87	Revised boundary of the Comanche Lesser Prairie Chicken Habitat Zoological Area (designated a Colorado Natural Area February 13, 1987).
4	7/24/87	Included in the Plan assessment of suitability and capability of Quail Mountain for proposed ski area development. Rescinded October 5, 1987.
5	07/24/87	Incorporated in the Plan, modified stipulations and supplements contained in FSM 2800 5/86 Supplement No. 25 for leases and permits issued on National Forest System lands.
6	07/24/87	Replaced fire management Standards and Guidelines with Regional fire management requirements that had been changed to provide greater flexibility to land managers.
7	07/24/87	Corrected a Plan map error to more accurately reflect Management Area Prescription application and changed acreage totals in the Management Area Summary Table.
8	07/24/87	Corrected information in the Plan – Appendix B; fuelwood products are not a part of the Allowable Sale Quantity (ASQ)
9	07/24/87	Rescinds Forest Plan Amendment No 1.
10	07/24/87	Assigned Management Area Prescription 1D (Provided for Utility Corridors) for certain lands within the Comanche and changed Management Area Summary Table III-3 to show a change

Amendment No.	Date Approved	Summary
		in the acreage of four Management Areas.
11	08/20/87	Replaced Appendix A (Ten-year Timber Sale Schedule) and established a three-year schedule of planned vegetation treatment projects.
12	10/05/87	Replaced appendix C (Ten-Year Road Construction and Reconstruction Schedule) and established a three-year schedule of planned road construction/reconstruction projects.
13	12/09/88	Recommended establishment of the 373-acre Hoosier Ridge Research Natural Area, South Park District.
14	12/09/88	Assigned Management Area Prescriptions 2B and 4B to 10,290 acres of the Cimarron River corridor on the Cimarron.
15	01/89	Amendment drafted but not finalized.
16	01/03/89	Established three-year Timber Sale and Road Construction/Reconstruction Schedules (revised appendices A & C). (FSM 1920, R2 Supplement No. 8, 03/86 and FSH 1909.12, R2 Supplement No. 1, 08/88).
17	01/03/89	Assigned Management Area Prescription 5B to Babcock Hole, San Isabel (San Carlos District); 9,021 acres.
18	01/03/89	Assigned Management Area Prescription 1D to Methodist Mountain, San Isabel (Salida District); 53 acres.
19	03/02/89	Assigned Management Area Prescription 5B (Emphasis on Big Game Winter Range) in the Dry Union Gulch area, San Isabel (Leadville District) – change from a 7D Management Area Prescription; 5,114 acres.
20	12/06/89	Replaced three-year Timber Sale and Road Construction/Reconstruction Schedules (revised Appendices A & C). (FSM 1920, R2 Supplement No. 8, 03/86 and FSH 1909.12, R2 Supplement No. 1, 08/88).
21	06/11/90	Established Scenic Highway of Legends as a Scenic Byway on the San Carlos District. Incorporated new management direction for Scenic Byways in the Plan.
22	10/04/90	Replaced three-year Timber Sale and Road Construction/Reconstruction Schedules (revised Appendices A & C).
23	02/12/92	Oil & Gas Leasing – Incorporated decision made 02/92 to consent to oil and gas leasing. Reference Final EIS and Record of Decision (ROD).
24	04/09/92	Added Picket Wire Canyonlands per PL 101-501. Also established management area direction.
25	09/21/94	Revised Plan map to establish a utility corridor for the Divide Power Line between Divide and Lake George.
26	03/00	Changes VQO within Ski Cooper permit area to Modification.
27	02/01	Establishes Stanley Canyon expansion to the Northfield Multi-User Communications Site.
28	08/01	Amends suitable timber base and certain standards and guidelines in the area of the Upper south Platte Watershed Protection and Restoration Project.

Potential Amendments/Need for Change/Plan Revision Topics

Wilderness – Congress established additional Wilderness Areas on PSICC in 1993. The Plan ROD identified certain lands as suitable for wilderness and the Plan’s map was accordingly drawn to reflect that finding. When additional Wilderness was established, the final boundaries did not match those shown as recommended on the Plan’s map. For this reason, some changes to the Plan’s map are needed. In addition, one outcome of the recreation capacity study (see the discussion under Dispersed recreation) concluded that the pattern of management prescriptions in certain areas was not consistent with sustainable levels of use. This has led to the modification of outfitter guide permits and some modifications in public use management. In some areas, however, Plan Standards and Guidelines for level of human use and encounters are still not being met in some wilderness watersheds. Both the boundary changes and any needed changes in prescriptions may need to be addressed prior to Plan Revision.

Wildfire Hazard – Recent large fires, like Buffalo Creek and Hayman (see Fuels Treatment, Soil and Water) serve as a reminder that forested lands are becoming increasingly susceptible to catastrophic fires.

As reviewed earlier in this report (see Forest Condition and Use), the activity that historically had the greatest effect on this situation – timber harvest – has greatly declined in recent years. The net effect is that forested areas throughout the mountains are becoming more susceptible to catastrophic wildfires and are not meeting desired conditions identified in the Plan.

This situation is not unique to PSICC – it is widespread throughout the National Forests. Because of this, increased funding is anticipated to help work on the situation. Fuels treatment projects have already increased in recent years, and during FY02 there was work on a Front Range Fuels Strategy (which will help identify priority areas of fuels treatment on public lands for the PSICC and adjoining forests). Much work involving a variety of treatment types, over a long period of time is needed. Not only are steady-state levels of fuels treatment appreciably above those of recent years, but major backlog also exists. To help ensure that projects are designed to produce the most effective results, the Plan could be amended to: 1) clarify the desired condition of forested lands; 2) establish priorities for the types of areas where treatment would produce the most beneficial results; and, 3) modify PSICC direction regarding fuels treatment to provide greater flexibility in prescribed fire management.

The Front Range Fuels Strategy, when final, should help move forested areas back towards the desired conditions identified in the Plan. This Strategy and other proposals to address forest-wide wildfire hazards will be incorporated into or will be addressed during Plan Revision.

Travel Management – A pervasive issue on most National Forests is travel management. In FY97, PSICC began an informal assessment to gain a clearer understanding of the issues involved. The assessment was completed in FY98, and determined that most of the issues have to do with the local administration and enforcement of the broad travel management decisions reflected in the Plan. Those local issues are best resolved at the local or District level. Where the issues relate to land allocation, such as Wilderness, semi-primitive non-motorized and semi-primitive motorized prescriptions, they are appropriate questions to address at the Plan level. These and other land allocation decisions will be addressed as part of Plan Revision.

Management Indicator Species - In 2002, a review of currently-listed MIS was prepared. This review provides the information needed to determine if current MIS should be retained or dropped based on criteria such as the feasibility to monitor species at the forest scale, and are they truly an indicator of management change. This review concluded that it is now appropriate to recommend certain changes to the 1984 list. To do so, an amendment will be proposed, which will discuss the need and rationale for the changes related to monitoring population trend based on species distributions and land ownership patterns.

SUMMARY EVALUATION AND CONCLUSIONS

Are the Plan's goals and objectives being met? Most of PSICC's goals are being pursued to some degree, but in most cases not at the rate envisioned in 1984. The ambitiousness of the overall program has proven to exceed the available funding levels during the years of the Plan's implementation.

Are the Plan Standards and Guidelines being followed? Decision documents signed by responsible officials certify that projects are designed to be consistent with the Plan. Monitoring results support those findings.

CERTIFICATION

The Plan, as currently written, is sufficient to guide implementation for the next year. There are several improvements that can be made to the Plan, but they are not required to meet the goals and objectives. Plan revision is expected to begin in FY04.

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Forest Supervisor

Date

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References

The information in this annual monitoring report is based on PSICC's Management Attainment Reports, Final Budget Documents, INFRA (Infrastructure) database, SILVA (silviculture) reports, Regional Revenue and 25% Payments to Counties reports, and individual program accomplishment reports. All reference documents are available for review at PSICC Supervisor's Office Headquarters located at:

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Additional copies of this report are available by writing to or visiting the address above, by calling 719-553-1475, or through the World Wide Web (<http://www.fs.fed.us/r2/psicc>).

APPENDIX A ... Timber Harvest History, 1987 through 2002 (Cutting Method and Acres Harvested)

Cover Type & Cutting Method	87	88	89	90	91	92	93	94	95	96	97	98	99	00	01	02	Total Acres
Ponderosa Pine																	
Selection	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	337	337
Intermediate cut, sanitation/salvage, commercial thin	170	92	243	243	364	1,312	1,459	1,105	27	0	448	89	75	0	180	1,429	7,236
Clearcut	11	15	27	0	0	0	0	0	0	0	0	0	0	0	0	0	53
Preparatory cut (shelterwood)	0	26	0	0	0	0	0	0	0	0	0	0	0	0	0	0	26
Seed cut (shelterwood)	83	251	378	428	0	80	113	0	0	0	0	26	0	0	0	0	1,359
Removal cut (shelterwood)	47	38	176	67	0	0	0	0	0	0	0	0	300	0	0	83	711
Aspen																	
Clearcut	40	101	81	85	140	69	73	49	13	7	9	0	0	0	0	0	667
Sanitation/salvage	0	0	0	0	0	0	0	5	9	0	0	37	0	0	0	21	72
Lodgepole Pine																	
Clearcut	57	151	43	38	176	47	156	102	54	0	130	14	25	0	0	7	1,000
Seed cut	0	0	0	0	66	107	12	0	0	0	0	0	0	0	0	53	238
Removal cut	0	0	0	0	0	0	13	0	0	16	0	0	0	0	0	0	29
Commercial thin	0	0	0	0	0	0	0	0	50	0	0	0	0	0	0	5	55
Sanitation/salvage	0	0	0	0	0	0	8	0	0	0	0	0	0	0	0	220	228
Engleman Spruce/Fir																	
Clearcut	2	64	57	0	150	64	44	0	0	0	0	0	0	0	0	36	417
Preparatory cut (shelterwood)	0	255	0	54	30	0	27	0	108	0	0	0	0	0	0	108	582
Seed cut (shelterwood)	0	0	34	0	553	0	175	430	0	0	88	88	0	0	0	0	1,368
Removal cut (shelterwood)	0	7	0	0	82	0	72	0	0	0	0	23	0	0	0	0	184
Selection (uneven-aged mgmt)	0	286	164	150	27	152	0	0	0	41	65	7	0	0	0	0	892
Mixed Conifer (Douglas-fir)																	
Intermediate cut, salvage, commercial thin	0	15	1,689	229	47	416	232	232	278	0	208	0	290	0	0	59	3,695
Clearcut	0	10	0	0	31	13	4	0	0	0	0	0	0	0	0	0	58
Preparatory cut (shelterwood)	0	386	0	0	0	0	0	0	0	0	0	0	0	0	0	0	386
Seed cut (shelterwood)	0	0	0	0	56	389	51	0	0	0	0	0	0	0	0	0	496
Removal cut (shelterwood)	0	0	59	79	261	0	0	0	0	0	0	0	0	0	0	0	399
Other Species																	
Sanitation salvage, special cut, selection, x-mas trees	0	0	0	0	0	0	93	16	0	0	0	0	0	0	10	0	119
Total Acres Cut	410	1,697	2,951	1,373	1,983	2,649	2,532	1,939	539	64	948	284	690	0	190	2,358	20,607

APPENDIX B ... PSICC Revenues 1985 to Present

PSICC Revenues 1985 to Present <u>1/</u> Revenue Category												
FY	National Forest Funds (\$)						Trust Funds (\$)					Total \$
	Timber Sales	Special Uses <u>2/</u>	Mineral Leases <u>3/</u>	Recreation Revenue	Grazing Fees	Power	K-V Funds	Salvage Funds	Purchaser Credit	Timber Purchase	Special Road Construction	
85	76,701	245,505	774,346	301,619	159,918		211,209	0	80,604			1,849,902
86	77,242	232,052	514,733	323,447	93,933		140,503	0	32,897			1,414,807
87	95,106	286,770	17,167,292	323,091	92,629		188,588	0	41,358			18,194,834
88	20,132	272,773	12,222,776	342,096	107,098		110,467	548	68,248			13,144,138
89	67,031	269,855	6,151,595	512,328	154,048		132,262	26,860	38,958			7,352,937
90	56,798	280,321	4,206,179	371,214	129,094		106,459	80,790	57,778			5,288,633
91	66,923	332,516	2,476,165	377,950	173,307		115,195	119,780	84,895			3,746,731
92	32,070	447,066	1,976,099	436,734	207,661		79,496	99,305	18,460			3,296,891
93	153,532	492,503	3,218,247	269,658	195,529		80,045	142,544	65,128			4,617,186
94	112,635	113,258	3,296,673	667,833	119,670		191,398	102,199	127,836			4,731,502
95	108,042	148,345	2,438,829	468,555	60,429		84,106	49,530	28,790			3,386,626
96	179,015	65,642	3,295,406	498,421	73,460		109,114	40,175	0			4,261,233
97	86,869	161,507	3,131,603	490,425	81,569		53,260	59,482	0			4,064,715
98	67,571	483,854	2,118,483	570,171	69,018		54,299	44,418	0			3,407,814
99	33,442	149,670	157	427,176	27,384		68,213	27,197	0			733,239
00	78,324	327,975	203,661	138,361	48,044	26,416	63,402	16,083	0	0	0	902,266
01	73,083	468,512	4,133,042	242,038	66,276	27,979	102,839	20,462	0	403	2,700	5,137,334
02	60,338	516,540	4,189,001	185,654	68,160	30,993	116,416	47,634	0	13,696	0	5,228,434

1/ Nominal year dollars

2/ Beginning in FY00, Special Uses includes Recreation Special Uses and Land Uses

3/ In FY00, mineral lease revenues were available for all units with the exception of the Cimarron (traditionally the bulk of these revenues comes from the Cimarron)