

United States
Department of
Agriculture

Forest Service

Rocky
Mountain
Region



Pike and San Isabel National Forests and Cimarron and Comanche National Grasslands

Annual Monitoring Report for Fiscal Year 2006

September 12, 2007



The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, age, disability, and where applicable, sex, marital status, familial status, parental status, religion, sexual orientation, genetic information, political beliefs, reprisal, or because all or part of an individual's income is derived from any public assistance program. (Not all prohibited bases apply to all programs.) Persons with disabilities who require alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact USDA's TARGET Center at (202) 720-2600 (voice and TDD). To file a complaint of discrimination, write USDA, Director, Office of Civil Rights, 1400 Independence Avenue, S.W., Washington, D.C. 20250-9410, or call (800) 795-3272 (voice) or (202) 720-6382 (TDD). USDA is an equal opportunity provider and employer.

Contents

Contents.....	iii
List of Figures	v
List of Tables.....	v
1.0. Introduction	7
2.0. Physical Components	7
2.1. Soil and Water Resources.....	7
2.1.1. Soils inventory	8
2.1.2. Soil and watershed improvement program	8
2.1.3. Watershed assessments.....	9
2.1.4. Burned area rehabilitation	10
2.1.5. Soil and water quality monitoring	10
2.1.6. Soil quality standards	11
2.2. Water Rights	12
2.3. Air Resources	13
2.4. Mineral Resources	14
2.4.1. Energy Minerals	14
2.4.2. Locatable Minerals	15
3.0. Biological Components	15
3.1. Wildlife, Fisheries, and Rare Plant Resources	15
3.1.1. Accomplishments of interagency objectives	15
3.1.2. Threatened and endangered species	15
3.1.3. Management indicator species	16
3.1.4. Habitat modification and improvement	29
3.2. Habitat Diversity: Forested Vegetation	31
3.3. Habitat Diversity: Grasslands Vegetation	34
3.3.1. Cimarron National Grassland ecosystems.....	34
3.3.2. Comanche National Grassland ecosystems	35
3.4. Riparian and Aquatic Assessments	35
3.4.1. Habitat trends.....	35
3.4.2. Aquatic habitat modification and enhancement on the PSICC	36
3.4.3. Monitoring of Other Species	38
3.5. Range Condition and Use	39
3.5.1. Allotment management planning	39
3.5.2. Acres administered to standard	40
3.6. Forest Condition and Use	40
3.6.1. Reforestation and timber stand improvement activities.....	41
3.7. Fuels Treatment	42
3.7.1. Outlook for the Future.....	44
4.0. Social Components	44
4.1. Heritage Resources	44
4.1.1. Cultural resources compliance surveys, inventories, and recorded sites	44

4.1.2. Interpretation, protection, public outreach and accomplishments .	45
4.2. Recreation	47
4.2.1. Developed recreation	49
4.2.2. Winter sports	51
4.2.3. Dispersed recreation: general forest areas.....	52
4.2.4. Wilderness	52
4.3. Scenic Resources.....	53
4.4. Travel Management	53
5.0. Economic Components	54
5.1. Capital Investments	54
5.2. Returns to the U.S.	55
5.3. Payments to Counties	55
6.0. Amendments to the 1984 Land and Resource Management Plan	56
6.1. Existing Amendments	56
6.2. Identified Need for Changing the 1984 Plan through an Amendment or Revision	59
6.2.1. Amendments to the 1984 Plan.....	59
6.2.2. Revision of the 1984 Plan	59
7.0. Information Sources for the Annual Monitoring Report	60
8.0 Summary Evaluation and Conclusions.....	60
8.1. Are the 1984 Plan’s goals and objectives being met?	60
8.2. Are the 1984 Plan standards and guidelines being followed?	60
9.0. References.....	61
10.0 List of Preparers	62
Appendix A: Timber Harvest History, 1987 through 2006 (Cutting Method and Acres Harvested).....	63
APPENDIX B. PSICC Revenues 1985 to Present	66
Certification.....	67

List of Figures

Figure 1. Soil and Water improvement	9
Figure 2. Air quality-related values	14
Figure 3. Acres of TES wildlife habitat improvement on the PSICC	16
Figure 4. Populations of greenback cutthroat trout on the PSICC and in Colorado.....	23
Figure 5. Total number of male lesser prairie chickens counted through lek censuses on the Comanche National Grassland during 1980-2005.	23
Figure 6. Trends in number of mountain plover (MPLO) observed and % of black-tailed prairie dog colonies with MPLO present on the Carrizo Unit of the Comanche National Grassland	28
Figure 7. Post-hunt Colorado Rocky Mountain elk population (January 2004).....	29
Figure 8. Acres of terrestrial wildlife (all) habitat improvement on the PSICC	30
Figure 9. Wildlife habitat improvement structures on the PSICC.....	30
Figure 10. Ponderosa pine forest on the PSICC	31
Figure 11. Lodgepole pine forest on the PSICC	32
Figure 12. Spruce-fir forest on the PSICC	32
Figure 13. Douglas-fir forest on the PSICC	33
Figure 14. Aspen forest on the PSICC	33
Figure 15. Riparian condition and PSICC 1984 Plan objectives	36
Figure 16. Acres of lake habitat improved on the PSICC.....	37
Figure 17. Stream habitat improvement structures and miles on the PSICC.	38
Figure 18. Grazing by AUMs.....	39
Figure 19. Timber volume offered.....	40
Figure 20. Total number of forested acres treated.....	41
Figure 21. Acres of reforestation: actual and PSICC 1984 Plan	42
Figure 22. Acres of timber stand improvement: actual and PSICC 1984 Plan	42
Figure 23. Heritage resource surveys conducted 1985 through 2006	45
Figure 24. PSICC visitor use by category (1996 data).....	48
Figure 25. Developed recreation sites' seasonal capacity	50
Figure 26. Winters sports annual use on the PSICC	51
Figure 27. All maintained Forest System roads on the PSICC	54
Figure 28. Returns to U.S. Treasury FY1985 - FY2006: actual and predicted.....	55

List of Tables

Table 1. Acres of active black-tailed prairie dog colonies measured using GPS surveys on the Comanche National Grassland, 1995-2006.	18
Table 2. Total acreage of potential habitat occupied by black-tailed prairie dogs on the Comanche National Grassland in 2002 and 2006.	19
Table 3. Acres of active black-tailed prairie dog colonies on the Cimarron National Grassland, 1989-2006.	20
Table 4. Total acreage of potential habitat occupied by black-tailed prairie dogs on the Cimarron National Grassland in 2002 and 2006.	21
Table 5. Population estimates of lesser prairie chicken on the Cimarron National Grassland during 1995-1999 and 2005, based on the lek-census method.	24
Table 6. Numbers of mountain plovers observed on prescribed burns in 2005 on the	

Comanche National Grassland.....	25
Table 7. Mountain plover densities during migration on prescribed burns in the Dry Creek allotment in 1999 and 2005 on the Comanche's Carrizo Unit.	26
Table 8. Burns providing potential nesting habitat for mountain plover on the Cimarron and Comanche National Grasslands.	26
Table 9. Areas surveyed for nesting mountain plovers using a systematic grid of survey points.	27
Table 10. Watershed acres (%) by condition class in 1997 and 2002.....	35
Table 11. Heritage resources accomplishments, 1994-2006.....	46
Table 12. PSICC activity participation by primary activity (from FY2001 NVUM report)	48
Table 13. Percentage use of facilities and specially designated areas on PSICC (from FY2001 NVUM report)	50
Table 14. Designated Wilderness areas on the PSICC.....	52
Table 15. 25% fund payments to counties by proclaimed units.....	55
Table 16. Summary of amendments to the 1984 Plan.....	56
Table 17. List of preparers by program.....	62
Table A-1. Timber Harvest History, 1987 through 1996 (Cutting Method and Acres Harvested).....	63
Table A-2. Timber Harvest History, 1997 through 2006 (Cutting Method and Acres Harvested) and Total Acres 1987 - 2006.....	64
Table B-1. PSICC Revenues 1985 to Present.....	66

1.0. Introduction

The Pike and San Isabel National Forests (Forests) and Cimarron and Comanche National Grasslands (Grasslands) (collectively referred to as the PSICC) include 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 very complex because it spans a variety of ecosystems, and social and economic settings, and must be integrated with the needs of two state governments and 17 counties.

The 1984 land and resource management plan (1984 Plan) for the PSICC focuses on resource needs and the desires of the diverse publics being served. Predicted rates of accomplishment corresponded with the needs identified in the 1984 Plan. As is apparent in many of the following sections, implementation has not kept pace with predicted rates.

2.0. Physical Components

2.1. Soil 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
3. Soil and water quality

2.1.1. Soils inventory

Conducting soils inventories is a prerequisite to land management planning and implementation. Collecting baseline data is a fundamental requirement supporting resource management mandates identified in the National Forest Management Act (NFMA). Modern soils inventories use an integrated approach to describe and map biotic and abiotic features: 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 the quality of mapping, available interpretations, and status. Two areas (the eastern portion of the Pike National Forest and Morton County) have current published surveys. The mapping, draft manuscripts, and interpretations have been completed for the remaining survey areas.

2.1.2. Soil and watershed improvement program

The future use of Federal lands depends on the protection and maintenance of soils and water resources. Improving watershed conditions is important for maintaining long-term ecosystem health at local and landscape levels. The program goals are to 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.
6. Ensure long-term health and sustainability of watersheds given the variety of demands on the land.

Direction in the 1984 Plan includes improving 440 treated or 1,200 affected acres per year. Figure 1 shows the number of treated acres from 1985 to the present. The PSICC has implemented over 400 soil and water improvement projects since implementation of the 1984 Plan, totaling more than 35,000 acres of treated or improved lands, excluding areas rehabilitated following wildfire (see Burned Area Rehabilitation, below).

¹ Pike National Forest, eastern part; Wet Mountains and Spanish Peaks; northern San Isabel National Forest and western Pike National Forest; Sangre de Cristo Range; Morton County, Baca County, Otero County and Las Animas County.

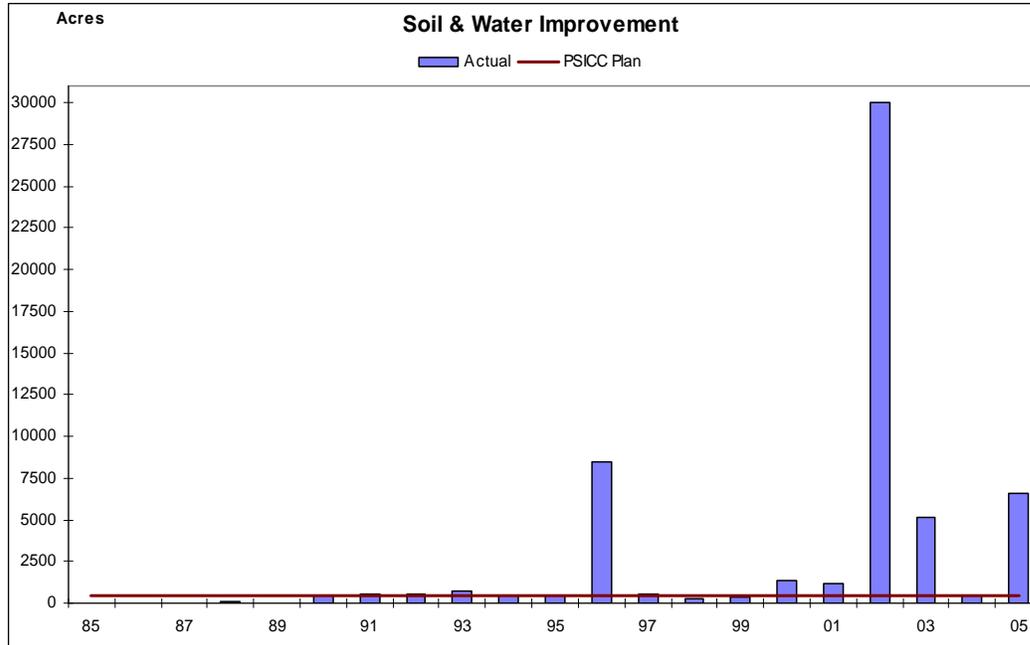


Figure 1. Soil and Water improvement

Over the past 21 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.

2.1.3. Watershed assessments

Watershed assessments are developed so that we can be more responsive to watershed improvement needs and landscape health issues across the PSICC. 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. On the San Isabel National Forest, the Wet Mountain assessment on the San Carlos District and the Tennessee-Arkansas assessment on the Leadville District are completed.

2.1.4. Burned area rehabilitation

Since 1996, eight wildfires have been approved for Burned Area Emergency Rehabilitation (BAER) funding (Buffalo Creek, Big Turkey, Hi Meadow, Snaking, Schoonover, Hayman, Steeler, and Mason Gulch). This has been in addition to the 1984 Plan projected level of watershed improvement projects. More than 34,000 acres have been rehabilitated using 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 Fire (137,760 acres) and the Mason Gulch Fire (11,357 acres) were the two largest burns in recent years. Major flood events accelerating erosion have occurred within the perimeters of these fires. Runoff from these flood events caused increased sediment levels to drainages within and downstream of the burn areas, contributing to watershed degradation. Road improvements and BAER monitoring occurred in the Hayman and Mason Gulch burn areas in 2006. Weed treatments occurred in the Mason Gulch burn area in 2006. Photo points, water quality, gully cross sections, erosion bridges, vegetation transects, and sediment weirs were used to monitor watershed recovery in the Hayman burn area. Ongoing BAER effectiveness monitoring, and water chemistry monitoring are being analyzed at the Rocky Mountain Research Station (RMRS).

2.1.5. Soil and water quality monitoring

Monitoring soils and water quality provides information about the effects of management decisions and subsequent actions involving soils and water. State and Federal regulations, 1984 Plan standards and guidelines, and the watershed condition analysis for seriously degraded and high value stream segments on the PSICC² give long-term objectives and monitoring guidelines used to measure changes in soils and watersheds.

The Forest Service, in conjunction with the Colorado Department of Public Health, collected additional macroinvertebrate data on the following monitoring and evaluation streams:

1. COARF003 Bear Creek
2. COARF003 Cheyenne Creek
3. COARUA13 East Beaver Creek, below Penrose-Rosemont Reservoir
4. COARUA24 Middle Beaver Creek
5. COSPUS02a Salt Creek, downstream of North Fork South Platte River
6. COSPUS03 Trail Creek
7. COSPUS03 Wigwam Creek, Flying G Ranch to South Platte River
8. COSPUS03 Spring Creek and tributaries
9. COSPUS03 Horse Creek

² U.S.D.A., Forest Service. 1998. FS-710. Watershed condition analysis: seriously degraded and high value stream segments on the Pike and San Isabel National Forests and Cimarron and Comanche National Grasslands. Compiled and edited by D.S. Winters and P. Gallagher. March 1998.

10. COSPUS04 Buffalo Creek, Indian Creek to South Platte River
11. COSPUS04 North Fork South Platte River, Buffalo Creek to South Platte River
12. COSPUS06a South Platte River, North Fork South Platte River to Strontia Springs

Work is ongoing on the 1998 303d-listed streams on the PSICC. A total maximum daily load (TMDL) for the Upper South Platte River was prepared in fiscal year (FY) 2002; the TMDL for Trout Creek is pending (scheduled for completion during FY2006–2007). Instream work in Elevenmile Canyon has addressed the instream component of the South Platte River TMDL for that reach of the river. Cross sections have been established to monitor geomorphology changes. The Elevenmile engineering report will be completed in FY2007 to address road-derived sediment. Planning is underway to implement the TMDL for the Happy Meadows reach of the South Platte River. All monitoring data is entered into the corporate soils and water databases maintained by the PSICC.

Water quality monitoring of streams affected by the 2002 Hayman fire occurred on eight streams. Water quality monitoring of the effects of timber harvesting was established in Harris Park on the South Platte District.

Soil and water quality monitoring is also tied to project implementation. In 2006, the Forest hydrologist, soil scientist, zone hydrologists and representatives from the six Forests districts and the two Grasslands districts, conducted field monitoring to evaluate Best Management Practices (BMPs) effectiveness. BMPs are used to ensure compliance with State and Federal regulations and with the 1984 Plan standards and guidelines.

Restoration of hillslopes damaged from off-highway vehicles (OHVs) took place on the South Platte District in the Rampart OHV Area, on the South Park District off of the 211 Matukat Road, and on the Pikes Peak District in Limbaugh Canyon and Rainbow Falls. Pre-work monitoring has been established with photo points and cross sections.

Trail Creek was resurveyed to monitor geomorphology after a 100-year storm event flooded the stream and caused West Creek to wash out Highway 67 between West Creek and Deckers.

Both the South Park and Salida districts range allotment management plans (RAMPs) environmental analysis incorporated proper functioning condition monitoring to determine the effect of grazing on soil and water resources.

2.1.6. Soil quality standards

The PSICC uses the soil quality standards established for the Rocky Mountain Region of the Forest Service (Region 2). These provide threshold values to document major reductions in soil productivity potential. These values act as early warning signs to indicate when further alteration of soil properties would extensively change or impair soil productivity. Past soils monitoring tied to project implementation involved visual assessments of contract provisions and project mitigation designed to reduce the degradation of soils and water resources. These projects include or involve timber and

salvage sales, roads, trails and facility construction and maintenance, and 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.

2.2. Water Rights

Three goals of the PSICC are to

1. Maintain current water rights
2. Protect and maintain channel stability and capacity on streams
3. 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 about individuals seeking water rights on the Forests or Grasslands who may not hold special-use permits (SUPs) for the use. Rather than filing a Statement of Opposition, the PSICC would sometimes send a letter to the applicant about the special-use permitting procedures. Generally, if the water right application is for an “absolute” water right, a Statement of Opposition is filed instead of a letter.

In 2006, the PSICC continued to work on augmentation requirements for Lake Isabel and Manitou Lake. The State of Colorado is requiring the PSICC to augment for water lost due to evaporation on both lakes. Engineering firms have been hired, their recommendations have been reviewed, and a plan of action is being put in place. Due to the nature of the potential purchase of water rights, recommendations have changed numerous times according to availability and use of water rights for sale.

The PSICC is also currently working on getting long-term SUPs issued for North Fork, Boss and O’Haver reservoirs on the Salida District.

In 2006, a great amount of work was done to follow-up on the Water Division 1 case. Most of the rights in this case were never decreed, so work was done to verify that the uses originally filed for are still current. A list was created and sent to the Department of Justice which was then filed with the Water Division 1 Court. The PSICC has received notice that the State of Colorado has opposed 15 of our surface water rights filings. We are currently looking at our options related to these uses.

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. The PSICC is in the process of evaluating which water rights were ultimately decreed by the court, and which ones were removed from the case. We will then begin to assess the current status of the rights that were removed.

2.3. Air Resources

No new information was available for this section for FY2006. The following is reprinted from the FY2005 annual monitoring report.

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 and Sangre de Cristo 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. All prescribed fires are managed to comply with Federal and State Air Quality regulations.

Acid deposition is also being measured through a network of precipitation chemistry monitoring sites administered under the National Atmospheric Deposition Program/National Trends Network (NADP/NTN). In Colorado, there are 18 monitoring stations distributed across the state. One station is at the Manitou Experimental Forest headquarters on the Pikes Peak District.

In 1994, with the end of the first round of the Conservation Reserve Program (CRP) in Morton County there was speculation that a significant number of acres currently in the CPR program would be broken out and put back into ranch production. As a result, two PM₁₀ air quality-monitoring sites were installed by the Kansas Department of Health and Environment – one on the Grassland and one in Richfield, Kansas.

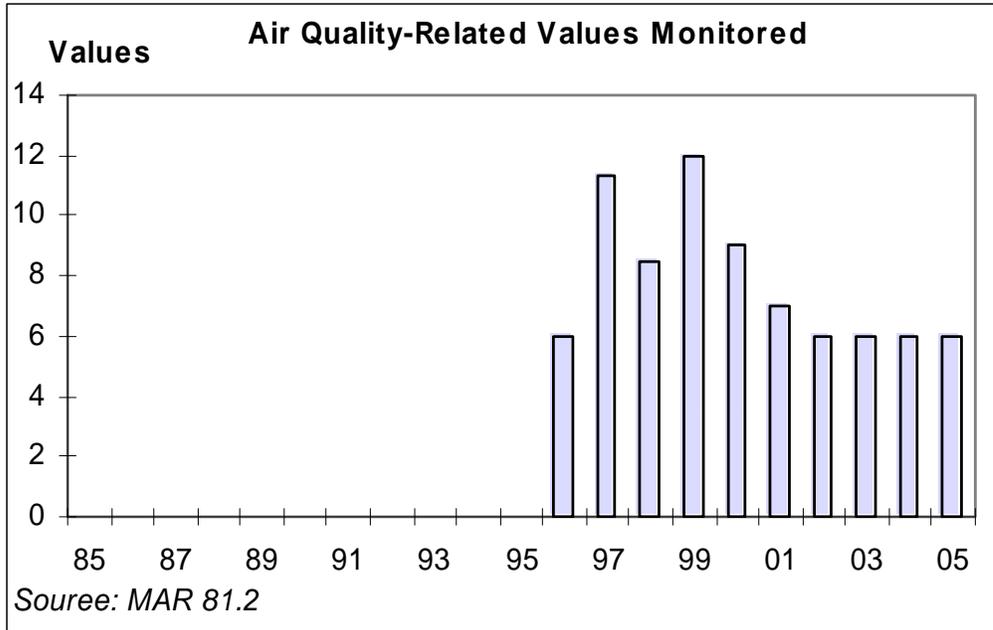


Figure 2. Air quality-related values

In 1998, when the Kansas Department of Health and Environment decided not to maintain either of these two sites, the Forest Service and the Morton County Conservation District continued their maintenance and equipment operation. All readings, with the exception of once at the Richfield site, have been in compliance with State standards. In 1990, corporate hog farms were being established in Morton County. The odor from the establishment of hog farms became an air quality issue in Morton County and the surrounding counties.

2.4. Mineral Resources

2.4.1. Energy Minerals

Both the Cimarron and Comanche National Grasslands (Grasslands) support the majority of the oil and gas leasing, exploration, development, and production activities on the PSICC. However, there has been renewed leasing interest along the Front Range of the Pike National Forest and in the Spanish Peaks area of the San Isabel National Forest. The Pikes Peak District now has areas under lease along the Rampart Range northwest of Colorado Springs and has a complete Application for Permit to Drill (APD) from Dyad Corporation. The South Park District has a proposal to lease an area southeast of the town of Jefferson, Colorado. The San Carlos District has a proposal to lease an area southwest of the town of La Veta, Colorado, and another southeast of the town of Cuchara, Colorado. Extensive seismic and other geophysical and geochemical exploration has taken place over the years in the Rampart Range and Wet Mountains.

2.4.2. Locatable Minerals

The South Park District of the Pike National Forest supports the majority of mining and exploration activities; some locatable mining also takes place in the Leadville and Salida Districts of the San Isabel National Forest and the South Platte District of the Pike National Forest. The majority of the small commercial operations mine amazonite and smokey quartz crystals, with some gold placer mining taking place on the Leadville District. No major or moderate exploration, development, or production operations have taken place. Recreational mining activities such as panning, dredging, and rock hounding are on a slight increase. Over the past couple of years efforts (including criminal litigation in two cases) have been taken to bring several unauthorized operations on the South Park District into compliance with regulation and policy. These efforts have been successful in that the operators currently have approved plans of operations in place.

3.0. Biological Components

3.1. Wildlife, Fisheries, and Rare Plant Resources

3.1.1. Accomplishments of interagency objectives

PSICC personnel meet regularly with the Bureau of Land Management (BLM), U.S. Fish and Wildlife Service (USFWS), Colorado Division of Wildlife (CDOW), Kansas Department of Wildlife and Parks (KDWP), and various other partners regarding wildlife objectives and opportunities for projects that will help achieve shared objectives. Topics have focused on lesser prairie chickens, big game, and trout with the state agencies, grazing management with the BLM, and threatened and endangered (T&E) species with the USFWS. CDOW's Habitat Partnership Program (HPP) includes representatives from CDOW, the Forest Service, BLM, private landowners, and hunters with the aim of addressing big game animal damage issues on private lands intermixed with state and federal ownerships. There are also two Antelope Conflict Resolution committees in southeastern Colorado, where state grazing allotments and the Comanche National Grassland coexist with private agricultural interests. The PSICC has established partnerships with state universities and species advocacy groups such as Trout Unlimited, Ducks Unlimited, the Rocky Mountain Elk Foundation, and the National Wild Turkey Federation for research and habitat enhancement projects.

3.1.2. Threatened and endangered species

Emphasis continues to focus on completing inventories to establish baseline species population and distribution information. The T&E habitat improvement has primarily involved work necessary to support the reintroduction of the greenback cutthroat trout and improve Pawnee montane skipper (butterfly) habitat. Prescribed burning and noxious weed treatments have been used extensively to restore ecosystem structure and composition for both Forest and Grassland sensitive species (i.e., mountain plover, black-

tailed prairie dog, lesser prairie chicken, northern goshawk, etc.). Partnerships are a critical part of achieving these accomplishments. Because of the importance of TES species, the goals of the Wildlife, Fish, and Rare Plants (WFRP) 5-Year Action Plan are focused on maintaining and enhancing the various habitats required supporting these species, with increased emphasis on protecting biological diversity. Figure 3 shows program accomplishments in the number of threatened, endangered, and sensitive species (TES) habitat acres improved from 1996 through 2006.

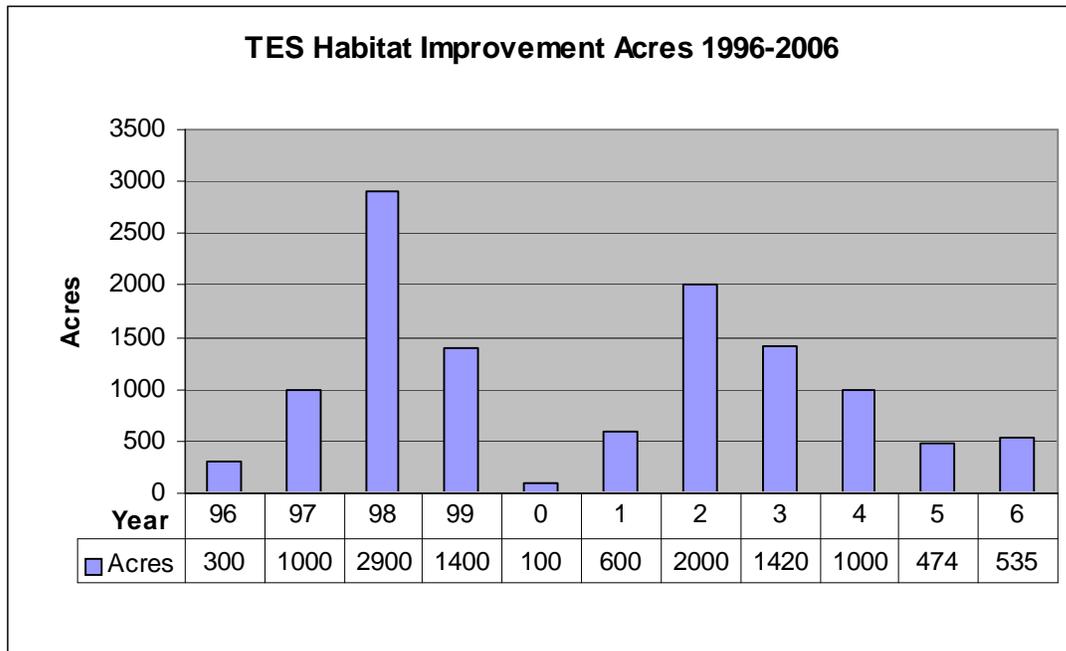


Figure 3. Acres of TES wildlife habitat improvement on the PSICC

3.1.3. Management indicator species

A decision notice for an amendment (#30) to the 1984 Plan was published August 8, 2005, modifying the current management indicator species (MIS) list. This review indicated the need to reduce the 1984 MIS list with related Forest and Grassland major management activities in associated ecotypes (called management indicator groups).

The final 1984 Plan Amendment #30, Decision Notice and environmental assessment are on file at the PSICC Supervisor’s Office in Pueblo, Colorado, and available on the PSICC Web site at <http://www.fs.fed.us/r2/psicc/projects/>.

3.1.3.a. Retained MIS species

Pike and San Isabel National Forests

1. Abert’s squirrel
2. Brook trout
3. Greenback cutthroat trout
4. Rocky Mountain elk

Cimarron National Grassland

1. Black-tailed prairie dog
2. Bullock's oriole
3. Lesser prairie chicken

Comanche National Grassland

1. Black-tailed prairie dog
2. Bullock's oriole
3. Lesser prairie chicken
4. Long-billed curlew

Abert's Squirrel

Abert's squirrel is dependent on ponderosa pine with open understory for both nesting sites and food and therefore is generally limited to open montane forests. Target feed trees represent less than 10% of the trees in stands populated by Abert's squirrel along the Front Range. Tree chemistry also affects nest-site selection. On the PSICC, surveys show approximately 92% of nests were in a tree group with 75% having three or more interlocking canopy trees. Population dynamics are poorly known. Population estimates range from 12 to 30 animals per km² in the Black Forest of El Paso County, Colorado, and from 82 to 114 km², near Boulder, Colorado. Spring population counts tend to be lowest. In 2004, protocol development and field-testing was done in conjunction with CSU and the San Juan National Forest. In 2005 and 2006, baseline surveys were conducted on approximately 4,000 acres of potential Abert's squirrel habitat. The Mason Gulch wildfire on the San Isabel National Forest, San Carlos District burned about 5,000 acres of potential habitat.

Black-tailed Prairie Dog

The black-tailed prairie dog has been identified as a MIS for the Grasslands, an ecosystem providing important habitat for other native species in shortgrass prairie (Kotliar and others 1999; Kotliar 2000; Kretzer and Cully 2001). The locations of active black-tailed prairie dog colonies have been monitored on the Grasslands using Global Positioning Satellite (GPS) technology since 1999. These surveys were conducted by Kansas State University in 1999 and 2001–2005 through a cost-share agreement with the Forest Service (Cully and Johnson 2005). In addition, colonies were mapped on the Comanche National Grassland in 1995 as part of a research project on burrowing owls (Toombs 1997). In 2006, Forest Service personnel on the Grasslands conducted a GPS survey of all known black-tailed prairie dog colonies. The following summarizes results of that survey, comparing trends in black-tailed prairie dog colony acreage on the Cimarron National Grassland and two separate administrative units of the Comanche National Grassland (Timpas and Carrizo Units), and examines the effects of plague in 2005–2006 on the total black-tailed prairie dog distribution from 1999 to 2006.

Comanche National Grassland

A total of 6,774 acres of active black-tailed prairie dog colonies were mapped on the Comanche National Grassland in 2006 (Table 1). On the Timpas Unit, we mapped 988 acres, of which 166 acres were from newly detected colonies (that is, not occurring in 2005). For colonies mapped in both 2005 and 2006, there was a 62% net increase in acreage on the Timpas Unit, which reflects a lack of plague occurrence in this area. Despite the increase in colony acreage, there is still only 0.8% of potential black-tailed prairie dog habitat occupied on the Timpas Unit (Table 1). On the Carrizo Unit, we mapped 5,786 acres, of which 218 acres were from newly detected colonies. For colonies mapped in both 2005 and 2006, there was a 61% net decrease in acreage on the Carrizo Unit, which was due to a plague epizootic that significantly reduced the size of most colonies in the central portion of the Carrizo Unit. A few large colonies on the eastern, western and southern edges of the Carrizo Unit were not affected by plague and continued to expand between 2005 and 2006. Based on 2006 results, 3.5% of potential habitat is occupied by black-tailed prairie dogs on the Carrizo Unit.

Table 1. Acres of active black-tailed prairie dog colonies measured using GPS surveys on the Comanche National Grassland, 1995-2006.

Year	Carrizo Unit (acres)	Timpas Unit (acres)	Comanche (total acres)	Net change in active colony acreage measured (%)
1995	5,728	551	6,279	
1999	1,894	N/A	N/A	
2001	3,851	362	4,213	
2002	5,127	575	5,702	35.3
2003	6,064	556	6,620	16.1
2004	11,592	536	12,128	83.2
2005	14,387	508	14,894	22.8
2006	5,786	988	6,774	-54.5

Black-tailed prairie dog colony data from 1995 to 2006 indicate that total colony acreage is similar in 2006 to levels measured in 1995, but there have been significant annual fluctuations in black-tailed prairie dog colonies acreage during those years. A plague epizootic was reported in 1995–1996, which likely explains the low initial acreages measured in 1999. The large increase from 1999–2005 reflects a series of dry years that reduced vegetation height and allowed rapid colonies expansion during 2003 and 2004. The declining acreage in 2006 represents a plague epizootic occurring 10 years after the previous outbreak. Many of the active colonies mapped in the summer of 2006 on the Carrizo Unit were continuing to decline in size or have no activity as of October 2006, so total Carrizo colony acreage is expected to decline significantly between 2006 and 2007.

Table 2. Total acreage³ of potential habitat occupied by black-tailed prairie dogs on the Comanche National Grassland in 2002 and 2006.

	Comanche National Grassland		
	Carrizo Unit (acres)	Timpas Unit (acres)	Total (acres)
Acres of potential habitat	122,336	98,770	221,106
Acres of low potential habitat	107,716	54,068	161,783
Acres of unsuitable habitat	23,961	22,684	46,644
Acres of unmapped habitat	3,242	10,989	14,231
2002 black-tailed prairie dog habitat occupancy			
Occupied acres in potential habitat	4,518	534	5,052
Occupied acres in low potential habitat	524	25	549
Occupied acres in unsuitable habitat	37	15	53
Occupied acres in unmapped habitat	29	2	31
% of potential habitat occupied	3.7	0.5	2.3
2006 black-tailed prairie dog habitat occupancy			
Occupied acres in potential habitat	4329	797	5,126
Occupied acres in low potential habitat	1,334	39	1,373
Occupied acres in unsuitable habitat	97	12	109
Occupied acres in unmapped habitat	11	1	11
% of potential habitat occupied	3.5	0.8	2.3

We also analyzed changes in the locations of active colonies on the Carrizo Unit during the period 1995–2006. The analysis focused on colony locations in 1995, 2002 and 2006 because there was similar total active colony acreage (approximately 5,500) in all three of those surveys. Surprisingly, only 282 acres of the Carrizo Unit was occupied in all three surveys, representing only 5.2% of the mean active colony acreage during the three surveys. This finding demonstrates that over the course of a decade, black-tailed prairie dog colonies can undergo significant changes in locations on the landscape, most likely due to the effects of plague- and drought-driven population fluctuations. One important ecological consequence is that few localities experience long-term intense herbivory by black-tailed prairie dogs, while most colonized areas (more than 90% of colony acreage) experience intense herbivory by black-tailed prairie dogs for only a few consecutive years. This changing distribution of active colonies can in turn create a spatial and

³ Numbers exclude acreages that may occur on some small inclusions of non-NFS land within allotments.

temporal mosaic in shortgrass prairie structure and plant species composition.

Cimarron National Grassland

A total of 5,793 acres of active black-tailed prairie dog colonies were mapped on the Cimarron National Grassland in 2006 (Table 3). Of the 5,793 acres mapped, 508 acres were from newly detected colonies. Excluding these newly detected colonies, there was an overall rate of colony acreage decline of 11.1% from 2005 to 2006. Including the new colonies, there was a net decline in acreage mapped of -2.3% from 2005 to 2006 (Table 3). Mapping results showed a plague-induced reduction of colonies on the eastern half of the Cimarron National Grassland, while colonies on the western half were not yet affected by plague and continued to expand. We anticipate that plague is likely to continue to move westward during 2007 and impact the larger west-side colonies.

Table 3. Acres of active black-tailed prairie dog colonies on the Cimarron National Grassland, 1989-2006.

Year	Cimarron active colony (acres)	Net annual change in active colony acreage measured (%)	Source
1989	750		District files
1992	1,082		District files
1997	1,246		District files
1998	1,298		District files
1999	1,697		GPS surveys
2001	2,439		GPS surveys
2002	3,321	36.2	GPS surveys
2003	4,008	20.7	GPS surveys
2004	5,634	40.6	GPS surveys
2005	5,793	2.8	GPS surveys
2006	5,660	-2.3	GPS surveys

In contrast to the Comanche National Grassland, results from the Cimarron National Grassland from 1989–2006 suggest a steady, long-term increase in colony acreage, without any large-scale, cyclic plague epizootics. Plague was detected on the Cimarron National Grassland in 1999 and 2003 (Cully and Johnson 2005), but colony die-off was isolated in those years and did not spread to other colonies. However, plague did affect multiple colonies in the eastern Cimarron National Grassland during 2006, which is likely the first stage of a larger scale epizootic. Based on 2002 data, approximately 8.4% of the potential habitat that was occupied on the Cimarron National Grassland has expanded to 15% of potential habitat by 2006. The Cimarron National Grassland level of potential habitat occupancy is substantially higher than on the Comanche National Grassland. However, the Cimarron’s current 15% occupancy rate (Table 4) measured in 2006 is still below the pre-European settlement estimates of 20% occupancy (Gober 2000); with the outbreak of plague, the Cimarron National Grassland black-tailed prairie

dog occupancy rate will likely decline.

Table 4. Total acreage of potential habitat occupied by black-tailed prairie dogs on the Cimarron National Grassland in 2002 and 2006.

	Acres
Acres of potential habitat	36,230
Acres of low potential habitat	48,181
Acres of unsuitable habitat	24,123
Acres of unmapped habitat	0
2002 habitat occupancy on the Grasslands	
Occupied acres in potential habitat	3,036
Occupied acres in low potential habitat	229
Occupied acres in unsuitable habitat	16
Occupied acres in unmapped habitat	0
% of potential habitat occupied	8.4
2006 habitat occupancy on the Grasslands	
Occupied acres in potential habitat	5,438
Occupied acres in low potential habitat	180
Occupied acres in unsuitable habitat	25
Occupied acres in unmapped habitat	17
% of potential habitat occupied	15.0

Brook Trout

The Forest Service, in cooperation with the Colorado Division of Wildlife (CDOW), conducted baseline inventories of trout populations in small streams in the Pike and San Isabel National Forests between 2003 and 2006. Crews sampled fish within discrete stream sections using backpack electrofishers. Station location and size, crew, date, species, fish lengths and weights, and pass that fish were captured were recorded and later entered into the CDOW’s JakeOmatic fisheries program (Rogers 2005). Cutthroat trout subspecies, such as greenbacks, were not differentiated.

Depletion methods were used to estimate fish population size (N) for each sampled reach. For most stream segments the JakeOmatic two-pass removal program was used to estimate population size for each species and 95% confidence limits. If low capture efficiency for the first two passes resulted in a high variance of N, then we used a multi-pass depletion method (Carle and Strub 1978) to estimate N. The JakeOmatic program was also used to estimate number of fish per unit area, estimate fish biomass per unit area, plot length frequencies, and plot relative weights.

Baseline

We sampled fish populations in 64 stream segments on the Pike and San Isabel National Forests during 2005. Species sampled included brook trout at 50 sample sites, cutthroat trout at eight sites, brown trout at 21 sites, rainbow trout at three sites, and white suckers at two sites. No fish were captured at seven sample sites. We also sampled six stream segments during 2004 and 16 stream segments during 2003 on the Pike National Forest.

Where brook trout were present, their densities ranged from 51 fish per hectare to 17,582 fish per hectare and averaged 1,894 fish per hectare. Brook trout biomass ranged from 4 kilograms per hectare to 505 kilograms per hectare and averaged 35 kilograms per hectare. Where cutthroat trout were present, their densities ranged from 24 fish per hectare to 9,694 fish per hectare and averaged 1,120 fish per hectare. Cutthroat biomass ranged from 2 kilograms per hectare to 174 kilograms per hectare and averaged 28 kilograms per hectare. Densities for all salmonids ranged from 21 fish per hectare to 17,582 fish per hectare and averaged 2,110 fish per hectare. Biomass for all salmonids ranged from 4 kilograms per hectare to 505 kilograms per hectare and averaged 39 kilograms per hectare. Population trend statistics cannot be determined with only one or two years of population data for the established sample sites. However, obvious population trends are noted for streams in the Hayman Fire area where fish numbers were drastically reduced. No or few fish were captured at nine sample reaches one and three years after the fire in Wigwam Creek and Trail Creek within the burned area.

The fish population results from our 2005 and 2006 efforts will serve as baseline data to compare with future surveys and estimates at the same locations to assess trends over time. More sampling at established sample sites will be done to determine aquatic MIS population trends for most streams.

Greenback Cutthroat Trout

Existing greenback cutthroat trout populations are restricted to small, remote high elevation streams and lakes where populations often have been protected by fish movement barriers. Approximately 18 stable populations are located in the South Platte River drainage, and three stable populations are located within the Arkansas River drainage (USFWS 2005). In addition to the three historic populations on the Pike and San Isabel National Forests, seven populations have been restored. At this time, two of the populations are considered stable, four potentially stable, and three unstable. The following graph (Figure 4) shows the number of populations due to greenback recovery efforts over the existing historic populations for all of Colorado and the PSICC.

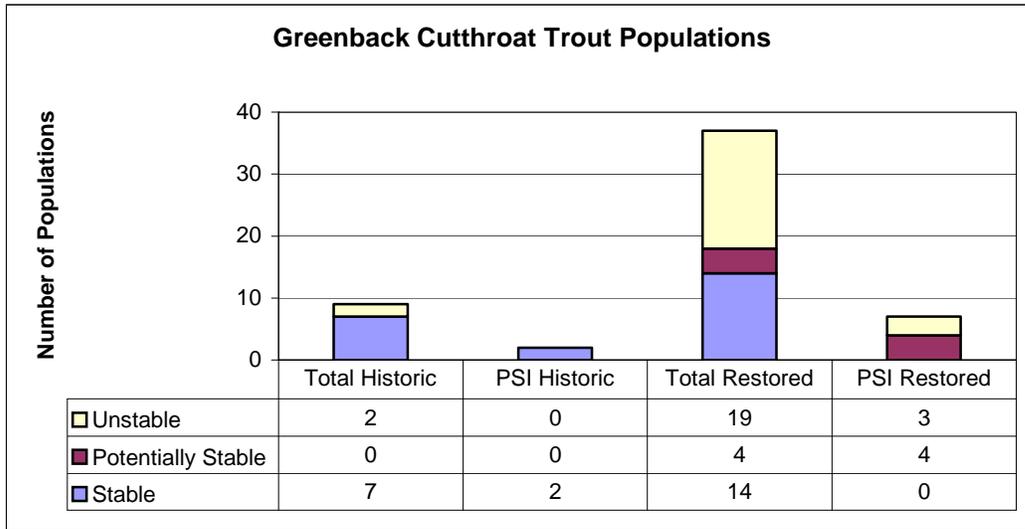


Figure 4. Populations of greenback cutthroat trout on the PSICC and in Colorado.

Lesser prairie chicken

Results from lek surveys on the Comanche show a downward trend in the lesser prairie chicken population during 1989–2005 (Figure 5). Assuming a 1:1 sex ratio, the total lesser prairie chicken population estimate was highest in 1988 with 348 birds and the lowest in 2005 with 64 birds.

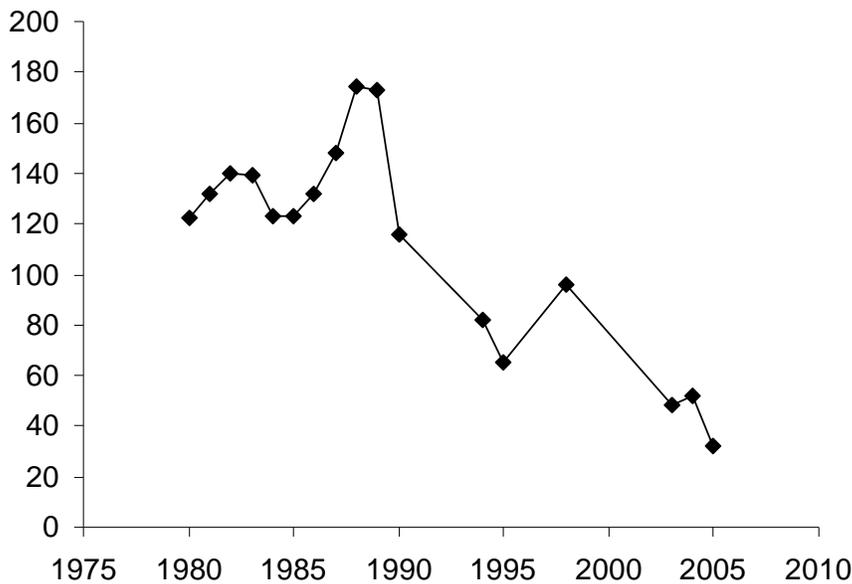


Figure 5. Total number of male lesser prairie chickens counted through lek censuses on the Comanche National Grassland during 1980–2005.

The number of lesser prairie chickens counted along this transect can fluctuate considerably from year to year, likely in response to climatic variation, but the long-term trend has been a declining number of lesser prairie chickens during the period from 1964–1994, following by an increasing number of birds counted during 1994–2004. Numbers counted in recent years (2000–2004, average of 5.7 birds/square mile) are still lower than numbers counted in the 1960s (1964–1970, average of 10.2 birds/square mile) and the 1970s (1971–1980, average of 10.0 birds/square mile).

During 1995–1999, more intensive surveys of the lesser prairie chicken population on the Cimarron National Grassland were conducted by Lawrence and Ruth Smith from Elkhart, Kansas, under contract with the Cimarron National Grassland. They conducted a complete census of leks each spring from 1995–1999 by intensively searching along and listening from all roads on the Grassland south of the Cimarron River (lek census method). The Forest Service and KDWP staff repeated this survey in 2005. See Table 5 for more information.

Table 5. Population estimates of lesser prairie chicken on the Cimarron National Grassland during 1995-1999 and 2005, based on the lek-census method.

Year	Birds flushed	Estimated # of males	Estimated total # lesser prairie chickens	Total acres surveyed	Square miles surveyed	Total population estimate: Birds per mi ²
1995	142	135	270	61,638	96.3	2.80
1996	129	123	245	61,638	96.3	2.54
1997	91	86	173	61,638	96.3	1.80
1998	138	131	262	61,638	96.3	2.72
1999	149	142	283	61,638	96.3	2.94
2005	131	124	249	61,638	96.3	2.58

Mountain Plover

One of the desired outcomes in grasslands management is to manage for mountain plover, which requires annual disturbance from heavy grazing by herbivores (like prairie dogs, livestock and wild ungulates), prescribed fire and wildfire.

During 2006, mountain plover surveys were conducted on black-tailed prairie dog colonies, on one prescribed burn, one wildfire, and two allotments where prescribed burns were conducted in previous years. Due to drought conditions during fall of 2005–spring of 2006, most planned prescribed burns on the Grasslands were not implemented. However, one prescribed burn was conducted on the Cimarron National Grassland in shortgrass prairie with potential mountain plover habitat (Elevator burn), and one wildfire occurred on the Comanche National Grassland in potential mountain plover habitat (Richardson fire). These prescribed burns and two black-tailed prairie dog colony areas of the Comanche National Grassland, which contained high mountain plover nesting densities in 2005 (the Dry Creek burn from 2005 and a large black-tailed prairie dog colony located on and adjacent to the Carrizo Swing burn from 2004), were surveyed for mountain plover nests in spring of 2006. Mountain plovers also utilize black-tailed prairie dog colonies for breeding. For this reason, a subset of 31 black-tailed prairie dog colonies distributed across the Carrizo and Timpas Units of the Comanche were surveyed for mountain plovers during May and early June of 2006. See information in Table 6.

Table 6. Numbers of mountain plovers observed on prescribed burns in 2005 on the Comanche National Grassland.

Allotment	Acres surveyed	Habitat	Migration surveys (3/30/05 - 4/12/05) # of plovers observed	Nesting surveys (4/20 - 4/21/04) # of plovers observed
Dry Creek	640	Prescribed burn	42	12
Sunset	320	Prescribed burn	18	0
Gramma grass	480	Prescribed burn	1	0
Total	1,440		61	12

The Dry Creek allotment was also burned in 1999 for mountain plover habitat improvement. Comparison of mountain plover numbers on the burn in 1999 (numbers reported by Giesen 1999) and 2005 are shown in Table 7.

Table 7. Mountain plover densities during migration on prescribed burns in the Dry Creek allotment in 1999 and 2005 on the Comanche's Carrizo Unit.

Year	Acres burned and surveyed	Plovers observed: Migration	Plovers observed: Breeding	Plover nests documented
1999	640	107	33	33
2005	640	42	12	9

One prescribed burn (Cimarron National Grassland) and on wildfire (Comanche National Grassland) occurred in potential mountain plover habitat (shortgrass prairie on loamy soils with slope <5%) during winter/early spring of 2006 (Table 8).

Table 8. Burns providing potential nesting habitat for mountain plover on the Cimarron and Comanche National Grasslands.

Allotment	Acres burned	Grazing association	Comments
Elevator	480	Cimarron	Mid-height and short grass prior to burn; included prairie dog colony
Richardson	70	Campo (Comanche National Grassland)	Shortgrass prior to burn; included prairie dog colony
Total	550		

Mountain plover population surveys

During May of 2006, a systematic grid of points was surveyed in four locations on the Grasslands (Table 9) with grid points spaced at approximately 0.2 mile intervals (Svingen and Giesen 1999). At each point, the observer would exit the vehicle for several seconds to show a human silhouette (to cause any nearby mountain plovers to move off of the nest) and then re-enter the vehicle and scan with binoculars for 2–3 minutes. In areas with suspected nesting mountain plovers or significant amounts of bare ground, the survey interval was shortened to 0.1 mile in order to more intensively survey the area.

Table 9. Areas surveyed for nesting mountain plovers using a systematic grid of survey points.

Allotment	Approx. # of acres surveyed	Date	Plovers observed	Habitat and comments
Elevator	480	5/17/06	3 adults, 2 nests with eggs	Prescribed burn with black-tailed prairie dog colony; colony active during survey; 12 survey points
Richardson	400	5/16/06	None	Wildfire and adjacent black-tailed prairie dog colony; 10 survey points
Carrizo Swing	960	5/4/06	1 adult & nest with eggs	Black-tailed prairie dog colony that expanded in response to 2004 prescribed burn; colony experiencing plague outbreak during spring 2006; 28 survey points
Dry Creek	640	5/13/06	None	Shortgrass prairie burned in spring of 2005; no black-tailed prairie dogs; 30 surveys points (2 transects used 0.1 mi spacing between points)

Surveys of the Carrizo Unit documented mountain plovers on 1 of 20 black-tailed prairie dog colonies (5%) in 2006, with six adult mountain plovers and one chick observed at the occupied colony (Figure 6). Surveys of the Comanche's Timpas Unit did not find any active mountain plover nests.

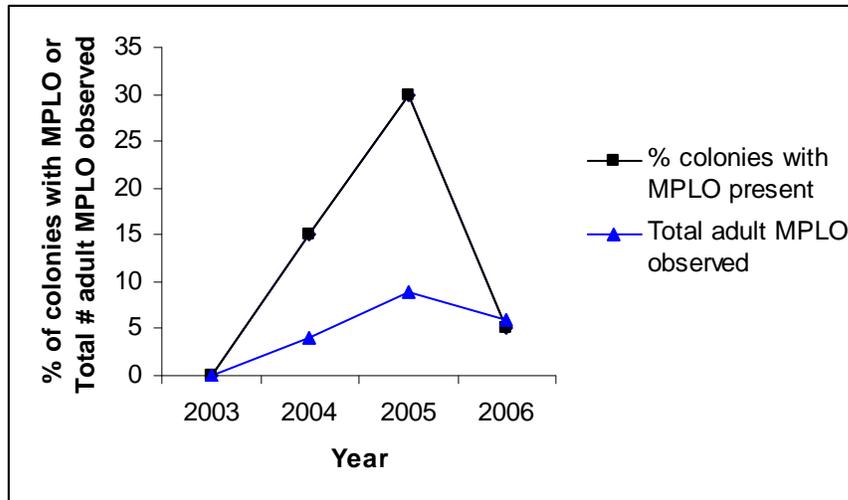


Figure 6. Trends in number of mountain plover (MPLO) observed and % of black-tailed prairie dog colonies with MPLO present on the Carrizo Unit of the Comanche National Grassland ⁴

Overall, mountain plover survey results during 2006 indicate:

- 1) Prescribed burns continue to provide nesting habitat for mountain plovers on the Grasslands, but the density of nesting mountain plovers on burns during 2004–2006 (1.2–9 nests per square mile on the Elevator, Dry Creek and Vienna burns) is still lower than densities documented on burns during 1998–1999 (Svingen and Giesen 1999).
- 2) Nesting mountain plovers continue to be documented on black-tailed prairie dog colonies on the Comanche National Grassland, but the proportion of colonies with mountain plovers based on the systematic surveys declined in 2006 compared to 2004 and 2005. Decreased use of black-tailed prairie dog colonies on the Comanche in 2006 may be related to the severe drought during fall 2005–spring 2006, which led to extensive failures of winter wheat in Baca County and hence extensive areas of bare ground on private lands intermingled with the Comanche National Grassland. Many of these failed wheat fields were plowed during the plover nesting season, and lack of information on nesting success on private land in Baca County continues to be a source of uncertainty for the mountain plover population. High nesting success documented on the Comanche National Grassland during 2005 indicates that prescribed burning to provide nesting habitat on the Grasslands, particularly during years with average or above-average spring rainfall, may be important for local mountain plover breeding populations.
- 3) Lack of data from adjacent private and Department of Defense lands makes assessment of overall mountain plover populations in southeast Colorado speculative at best. Due to mountain plover use of agriculture fields, especially plowed bare soils, usage trends of Grasslands habitat is also confounded by adjacent land management practices.

⁴ Based on surveys conducted annually at 50 permanent sampling points located on 20 black-tailed prairie dog colonies (1–5 points per colony) during 2003–2006.

Rocky Mountain Elk

Rocky Mountain elk was initially selected as a MIS because of the public's interest in hunting and viewing them. This species has specific habitat management guidelines in the 1984 Plan. The CDOW annually monitors elk at the Game Management Unit (GMU) scale to assess population trend changes (Figure 7). Other local factors such as human disturbance (recreation), roads, hazard fuel reduction, fire suppression and forest/range management can directly influence local elk numbers on the PSICC. The 1984 Plan provides some specific treatment guidance in big game Diversity Units that is unique from other habitat prescriptions.

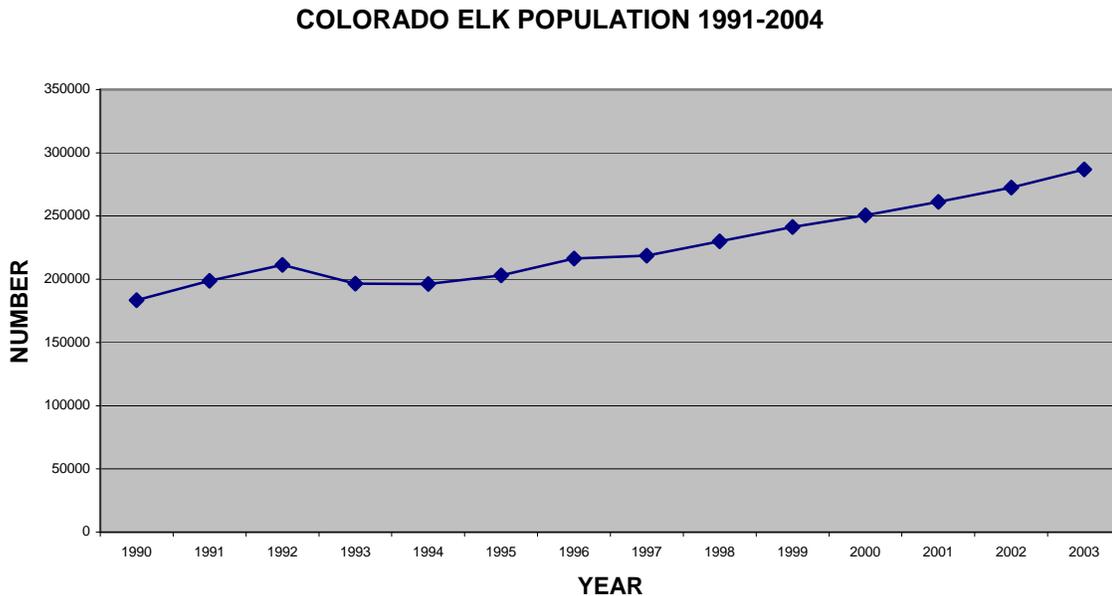


Figure 7. Post-hunt Colorado Rocky Mountain elk population (January 2004)

3.1.4. Habitat modification and improvement

Terrestrial Habitat Modification and Improvement on the PSICC

The annual number of wildlife habitat improvement acres and structures has remained relatively stable. Additional resources from partnership grants have increased the effectiveness of biotic inventories and habitat assessment capabilities. However, because the way improvements are tracked and funds allocated have changed several times over the last few years, direct comparisons between years is unwieldy. Figure 8 and Figure 9 illustrate the approximate accomplishments in habitat improvement from 1996 to 2006.

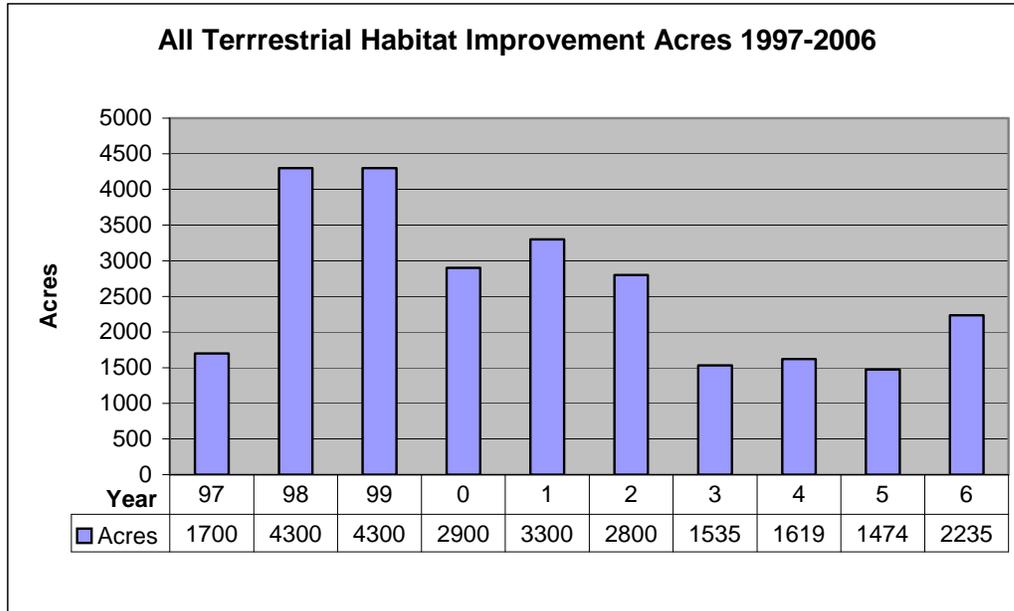


Figure 8. Acres of terrestrial wildlife (all) habitat improvement on the PSICC

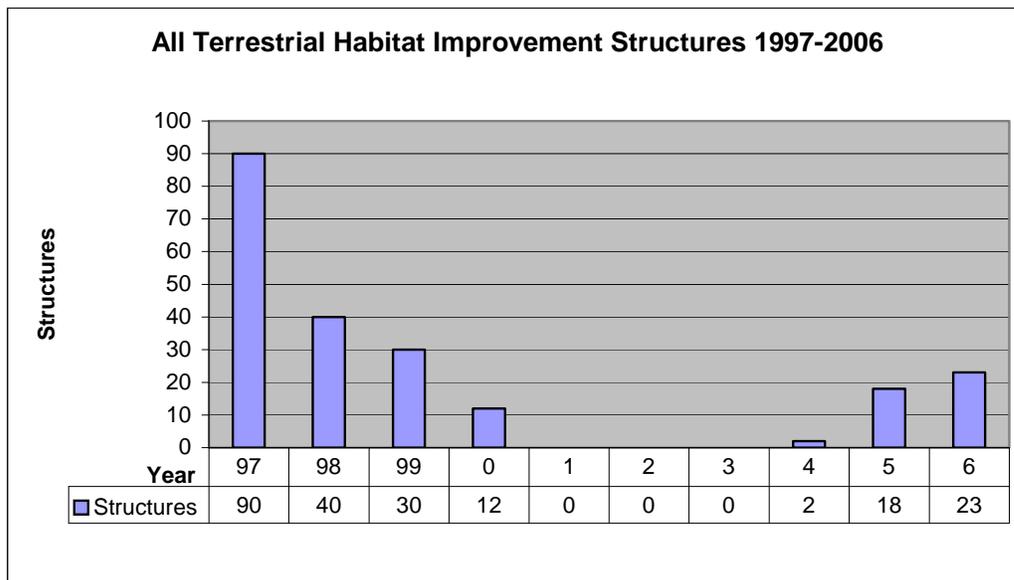


Figure 9. Wildlife habitat improvement structures on the PSICC

New information from research and monitoring will support better project designs and focus of resources. External partners are now a critical source of funding for projects and their implementation. More partnership funding is available than PSICC funds can match and make use of with current program funding and personnel levels. Surveys of other species (spotted owl, songbirds, Pawnee montane skipper, boreal toad, etc.) are kept on file at the local district for use in projects analyses.

3.2. Habitat Diversity: Forested Vegetation

Analyses made during the development of the 1984 Plan compared existing tree species age-class diversity on National Forest System (NFS) lands with a theoretical mix that would support desirable native wildlife species. The results for PSICC's major forest cover types are shown in Figure 10 through Figure 14 (ponderosa pine, lodgepole pine, spruce/fir, Douglas-fir, and aspen).

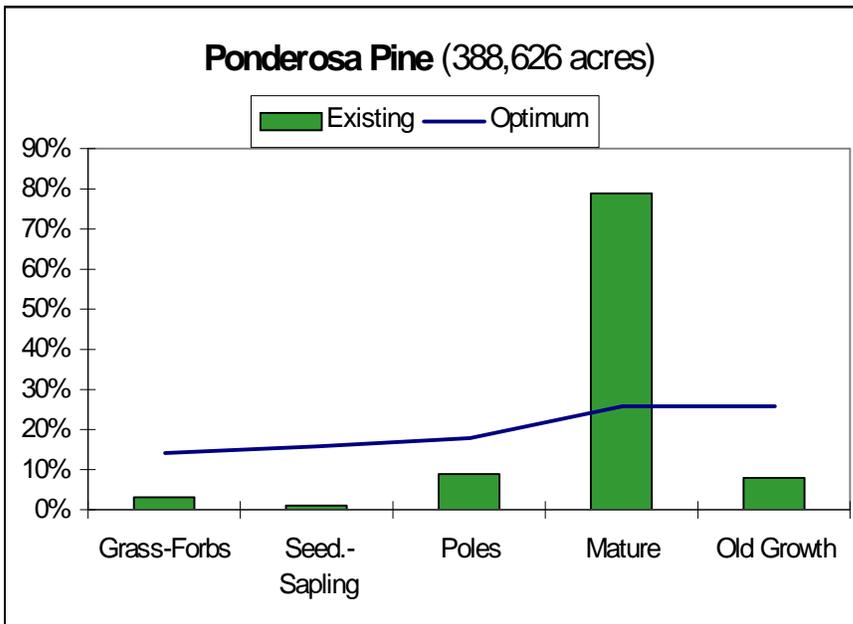


Figure 10. Ponderosa pine forest on the PSICC

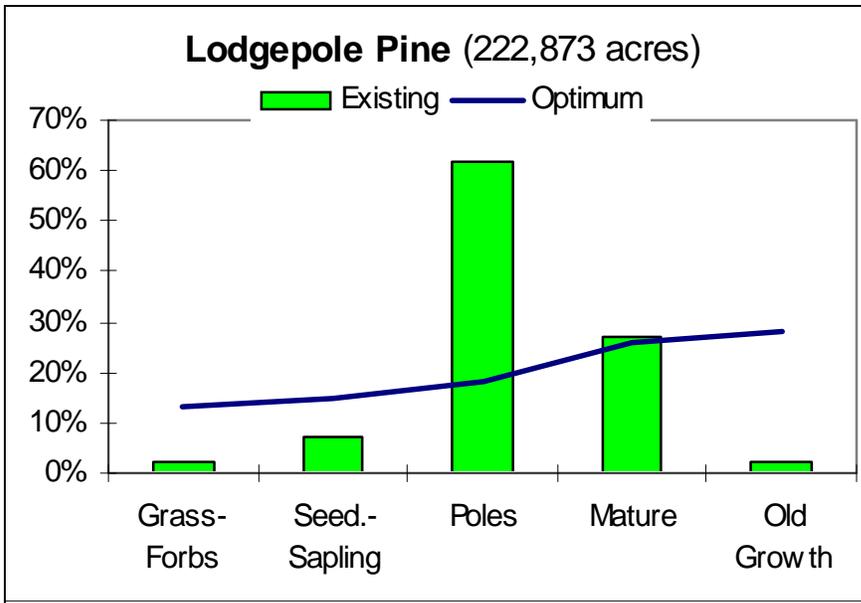


Figure 11. Lodgepole pine forest on the PSICC

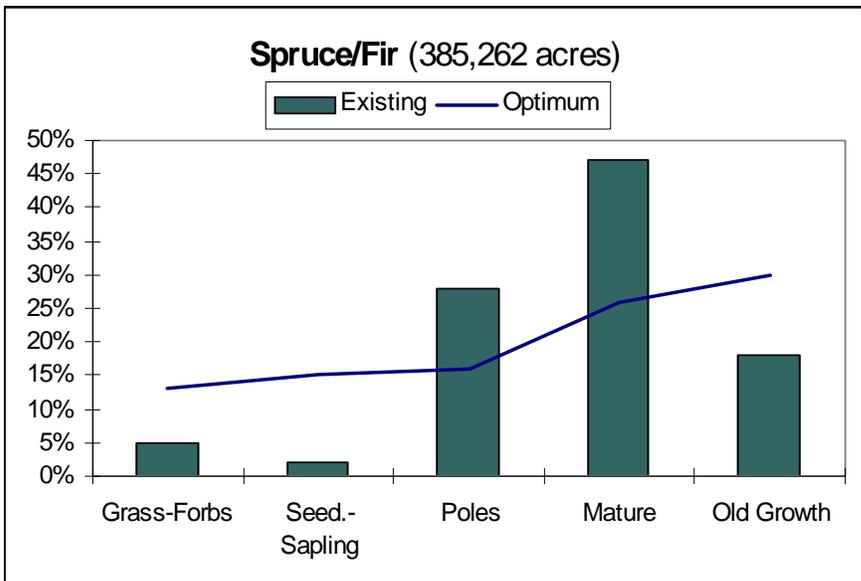


Figure 12. Spruce-fir forest on the PSICC

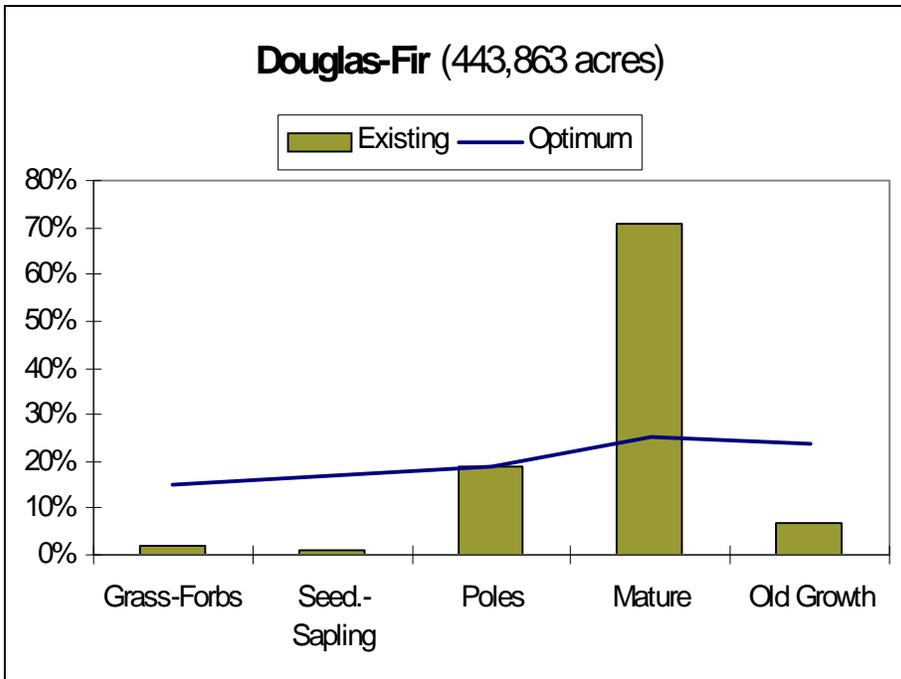


Figure 13. Douglas-fir forest on the PSICC

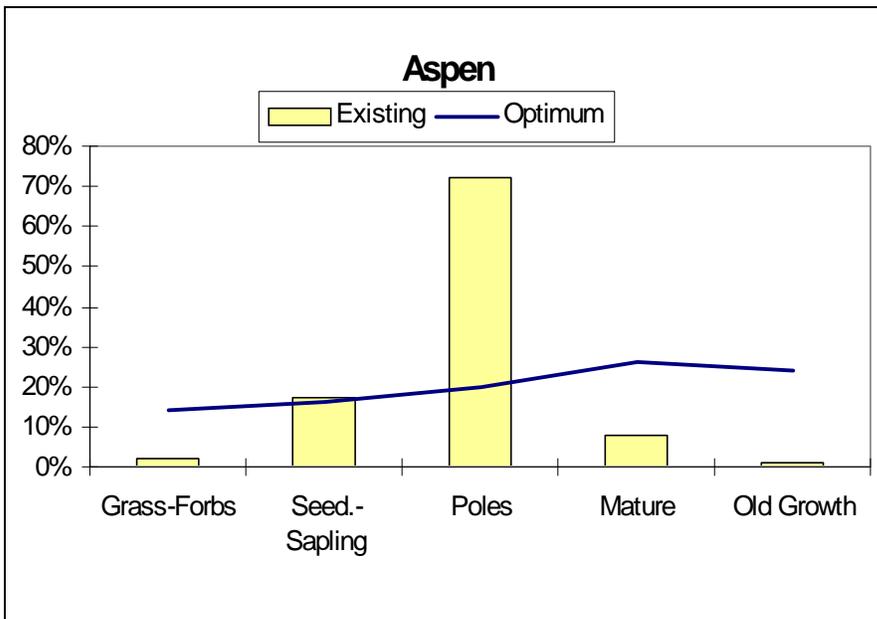


Figure 14. Aspen forest on the PSICC

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 1984 Plan was to focus forest management in over-represented structural stages and produce a landscape with a more balanced mix of

habitat characteristics.

However, forest structure vegetation management has been focused on hazardous fuel reductions, especially in urban interface areas. Wildfires have been the primary cause of changes to forest structure types during the past decade.

3.3. Habitat Diversity: Grasslands Vegetation

The Grasslands are in the Great Plains Physiographic Province. High winds, common in spring and early summer, combined with plowing and overgrazing contributed to the soil erosion in the 1930s Dust Bowl period. These winds are still a threat today, particularly when accompanied by drought, high temperatures, and the absence of cover vegetation.

3.3.1. Cimarron National Grassland ecosystems

Spanning 108,175 acres in southwestern Kansas, the Cimarron National Grassland is characterized by a riparian and two prairie ecosystems.

Riparian

Riparian is the most productive, yet smallest of the three ecosystems (10%) on the Cimarron National Grassland. It is found primarily 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, oil and gas operations, and urban development. These activities have impacted the soils, hydrology, and vegetation found within the watershed. Although this ecosystem is the most productive of the three, the spread of tamarisk (salt-cedar), a non-native invasive plant species, puts the riparian corridors at risk.

Sandsage Prairie

Sandsage prairie is the largest (60%) and least productive ecosystem on the Cimarron National Grassland. Today, the very sandy and highly erosive soils of the sandsage prairie can support minimal perennial species. This absence of plant cover is attributed to prolonged periods of drought compounded by the effects of the Dust Bowl period. Sandsage eradication projects conducted in the early 1980s further affected the soil stability and native plant communities of this ecosystem.

Shortgrass Prairie

Shortgrass prairie is the second largest (30%) and second most productive ecosystem on the Cimarron National Grassland. This ecosystem supports a mix of warm and cool season perennial grasses.

3.3.2. Comanche National Grassland ecosystems

Located in southeast Colorado and covering nearly 552,000 acres, the Comanche National Grassland lies between the Central and Southern Great Plains. Moving from north to south, the Comanche National Grassland is characterized by rolling loamy plains of shortgrass prairie supporting a vegetation community dominated by blue grama-buffalo grass. Piñon-juniper woodlands edge the plains, as the topography changes to canyons and tablelands. Further south, sandy and deep sandy soils support short- and mid-grass prairie vegetation where sand sagebrush-bluestem and bluestem-blue grama dominate. Woody species in riparian areas and trees are important sites for providing structural diversity and nesting habitat for birds.

3.4. Riparian and Aquatic Assessments

3.4.1. Habitat trends

Aquatic and riparian resources were described in the final environmental impact statement for the 1984 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 10 summarizes the percentages of each of these classifications on the PSICC in both 1997 and 2002.

Table 10. 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
San Isabel National Forest	5	5	66	66	29	29
Cimarron National Grassland	0	0	60	60	40	40
Comanche National Grassland	0	0	87	87	13	13

The results of this work indicate a wide range of watershed and riparian conditions on the PSICC. The majority of watersheds are rated as Class II – moderately impacted, indicating that anthropogenic activities have altered the lands managed by the PSICC in the past and present.

The Pike National Forest contains a high percentage of Class III watersheds. This is due to historic and current levels of elevated erosion and sedimentation. Much of the Pike is made up of highly erodible and poorly developed granitic soil, which can contribute large amounts of sediment into stream systems along the Front Range. Although erosion occurs naturally, the presence and use of roads and trails, road maintenance activities,

off-road uses, streamflow modifications (such as mining), and recent large wildfires have increased erosion rates and elevated sediment deposition into downstream watersheds.

Although almost one third of the San Isabel National Forest falls into Class III; most of these watersheds have been heavily affected 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 successful treatment.

The Grasslands have been affected by historic agricultural activities, and pristine watersheds no longer exist. Most watersheds on the Grasslands fall into Class II; the percentages of Class III watersheds vary between the Cimarron National Grassland and the Comanche National Grassland. The Grasslands' surface water flows are significantly altered by municipal and agricultural developments. Upstream dewatering and agricultural runoff have seriously reduced water quality and quantity in the Cimarron River and its tributaries. Stream systems with headwaters originating on or adjacent to the Grasslands show evidence of excess sedimentation caused from increased erosion from disturbance by cattle and vegetation conversion from perennial native to perennial nonnative and agricultural annual species. Figure 15 shows how management of riparian conditions across the PSICC is meeting the objectives in the 1984 Plan.

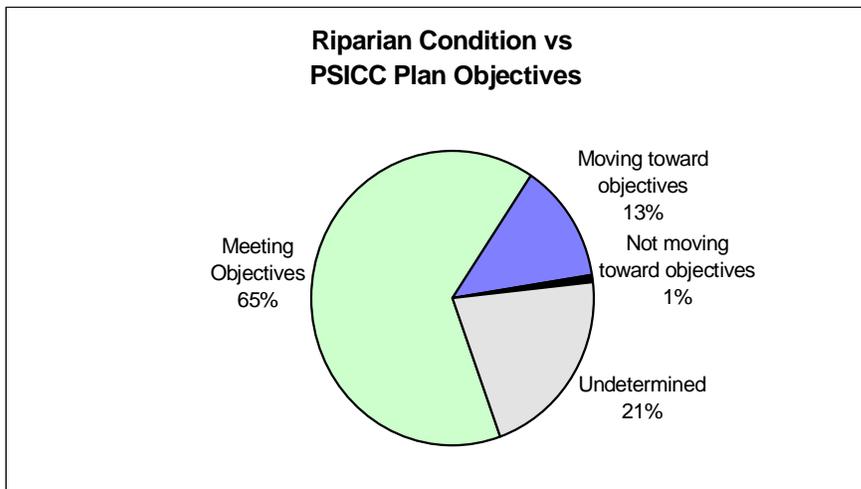


Figure 15. Riparian condition and PSICC 1984 Plan objectives

3.4.2. Aquatic 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 impact to riparian areas. Because sedimentation can change stream channel physiology, increased water temperatures, reduction in aquatic habitat and other indirect effects, in-stream channel and riparian re-establishment projects have focused on restoring the

physical processes needed to sustain habitat for aquatic and riparian-dependent species.

Most human-induced erosion is related to ground-disturbing activities, such as road and trail use, 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 invasive riparian vegetation with associated increases in water temperatures, mining effluent releases, and stream flow modifications (reduced flows). Recent adaptations of traditional habitat improvement methods have led to an increase in the effectiveness of stream enhancement projects. More emphasis is placed on treating root causes of dysfunction (disturbance and structural stability) than the symptoms (total pools, sedimentation).

Figure 16 and Figure 17 show the aquatic habitat accomplishments from 1985 through 2006. In 1996, accomplishment reporting for streams changed from “number of structures” to “miles improved.” While it seems that the numbers of structures/acres treated have decreased, the actual numbers of improvements have remained stable for over a decade.

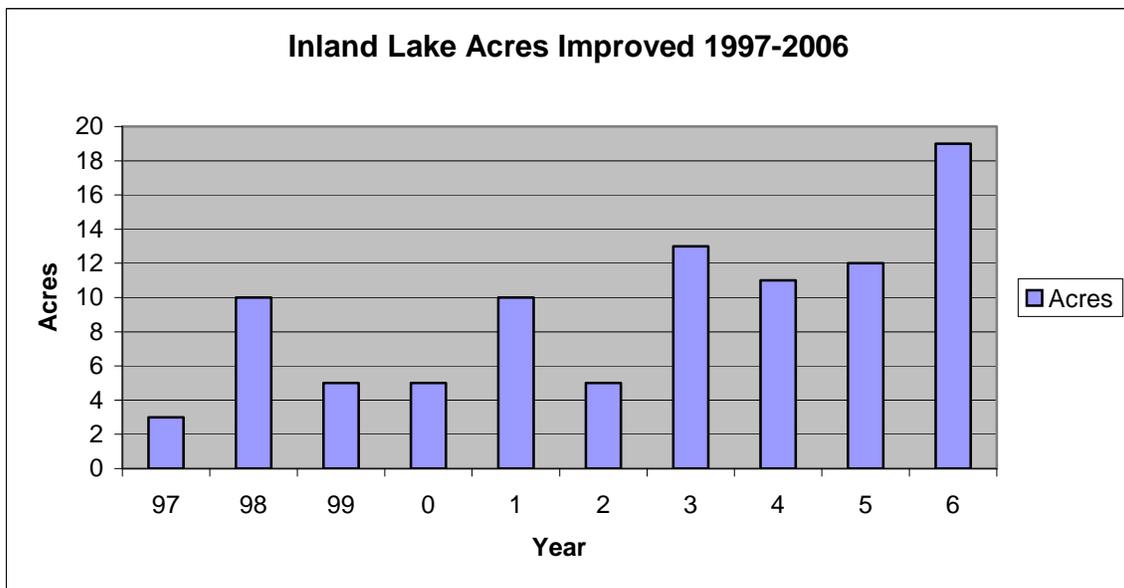


Figure 16. Acres of lake habitat improved on the PSICC.

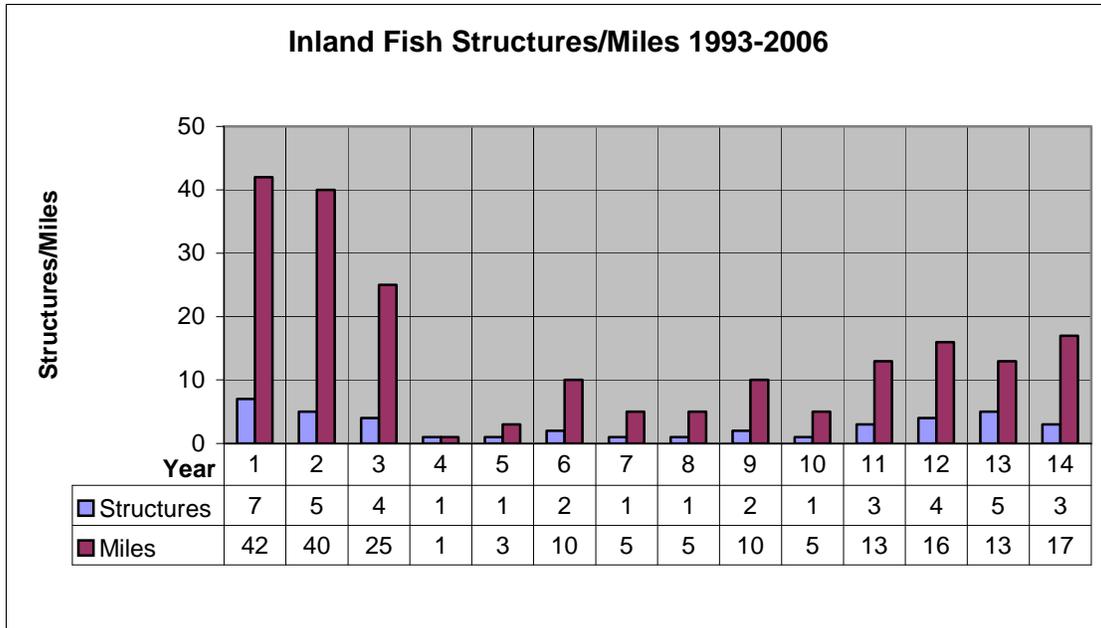


Figure 17. Stream habitat improvement structures and miles on the PSICC.

3.4.3. Monitoring of Other Species

Besides annual projects improving habitats, adding structures, removing noxious weeds and reintroductions, the wildlife, fish, and rare plant program also monitors (with numerous cooperators) as many species and plants as time and resources allow. These surveys are used to protect species and their habitats, as well as provide specific information for proactive habitat improvement projects in future years.

In conjunction with CDOW, KDWP, Colorado State University (CSU), Indiana State University (ISU), Rocky Mountain Bird Observatory (RMBO) and other individuals and groups, the following surveys and monitoring occurred:

1. Sensitive and rare plant surveys on the Comanche National Grassland by ISU, and on all districts as part of project planning (new sites found);
2. Breeding bird survey routes by RMBO;
3. Species surveys, including black swift, northern goshawk, Mexican spotted owl, boreal toad, Pawnee montane skipper, willow ptarmigan;
4. Fish and stream habitat surveys.

Program and project surveys covered hundreds of thousands of acres across PSICC.

3.5. Range Condition and Use

The long, extreme drought, over much of southeastern Colorado started to lift through the fall of 2005 and summer of 2006. The grazing season started slow as winter and spring moisture was less than average, and many of our ranchers were facing the challenge of re-stocking in a market that found replacements costing well over \$110 per hundred weight (cwt). As summer progressed, temperatures remained cool and precipitation was above average.

The combination of close observation, monitoring, and light stocking during the dry years allowed for improved forage recovery for all Districts during the summer of 2006. This improved recovery allowed for the PSICC to be stocked slightly less than average for the year.

In 2006, a total of 180,807 AUMs were grazed on the PSICC (Figure 18). This represents an increase in AUMs grazed in 2002 – at the height of the drought. In 2002, only 75,000 AUMs were grazed.

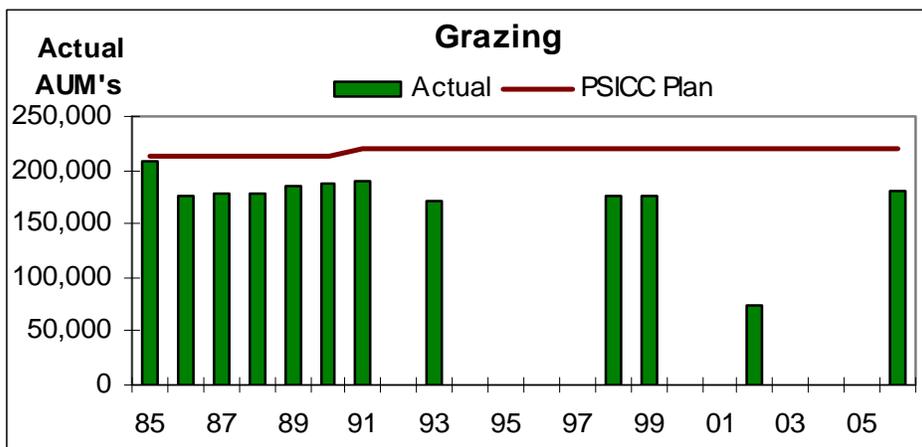


Figure 18. Grazing by AUMs

3.5.1. Allotment management planning

The data collection for the Salida district range allotment management plan (RAMP) was completed in 2006 and the NEPA analysis initiated a draft environmental assessment planned in FY2007. Included in this analysis are 10 allotments for the Salida District, two for the Leadville District, and one for the South Park District. The San Carlos District began data collection on 14 active allotments in 2006. The San Carlos District also has four Categorical Exclusion allotments of which field analysis was completed in 2006.

3.5.2. Acres administered to standard

The Districts and Forests rangeland management personnel gave added emphasis to administering the grazing that occurred on the PSICC in 2006. The drought that took place in the first half of the decade was intense and wide spread. When needed, changes in management were implemented to correct a situation before it resulted in resource problems. This careful planning and management through the drought was evident as plants responded to improved moisture conditions in 2006. In addition to management, many infrastructure improvements were accomplished, allowing for better flexibility and control of livestock. Even though 610,000 acres were targeted to be administered to standard, 1,181,267 acres were reported in 2006.

3.6. Forest Condition and Use

The 1984 Plan established an allowable sale quantity of 37 million board-feet (mmbf) per year, with the intent that timber offer targets would gradually approach that level as more acres were put under management. In 1984, approximately 1,065,220 acres were considered tentatively suitable for commercial timber harvest. Much of the timber sold was 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 projections in the 1984 Plan. By FY1994, the timber program had declined to historically low levels, with most of the volume harvested still being sold for fuel wood. The timber volume offered since the 1984 Plan has been implemented is shown in Figure 19.

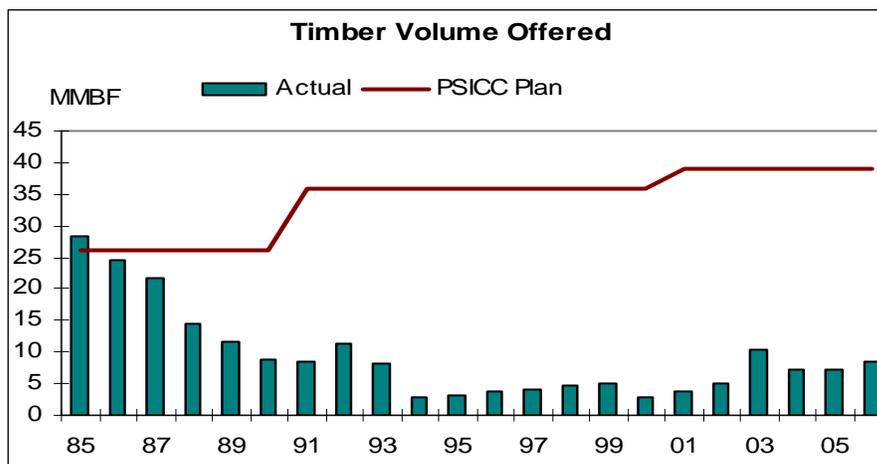


Figure 19. Timber volume offered

As shown in Figure 20, 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 shows acres harvested and cutting methods on the

PSICC since 1987. The net effect is that the situation as described in the 1984 Plan has not substantially changed, except that most of the trees are about 22 years older.

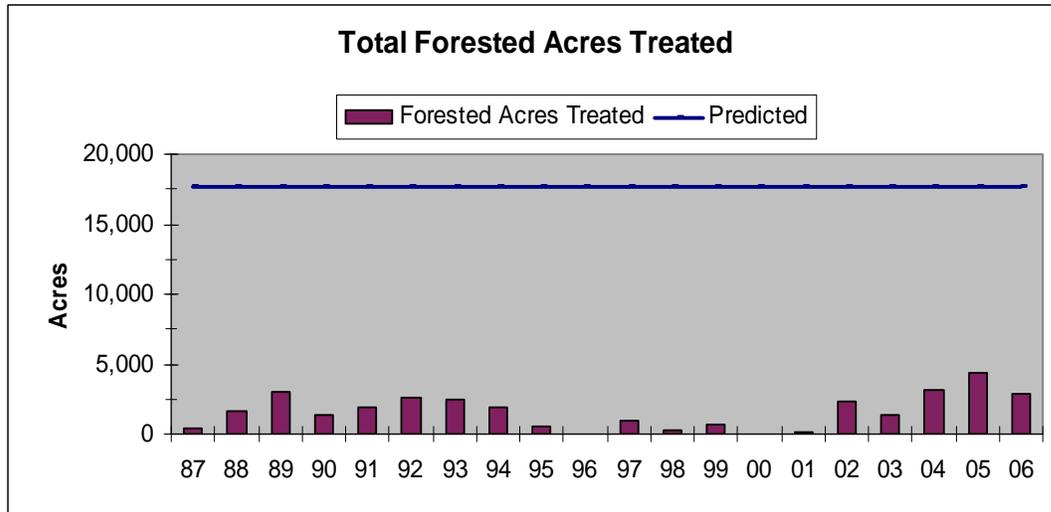


Figure 20. Total number of forested acres treated

Forest management on the PSICC has not kept 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, where the Buffalo Creek, Hi Meadow, Hayman, and Mason Gulch 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.
3. Use timber sales as a tool to achieve natural resource management goals.

This is discussed further in the Fuels Treatment section of this report.

3.6.1. Reforestation and timber stand improvement activities

These activities have been variable over time, as is shown in Figure 21 and Figure 22. Funds for these activities are obtained primarily from timber sale revenues.

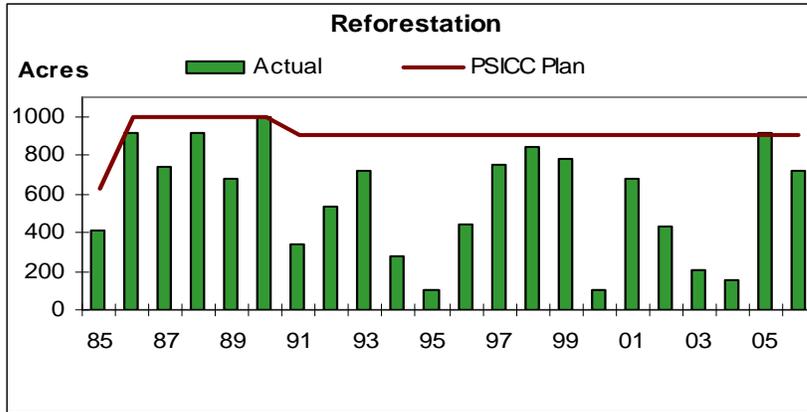


Figure 21. Acres of reforestation: actual and PSICC 1984 Plan

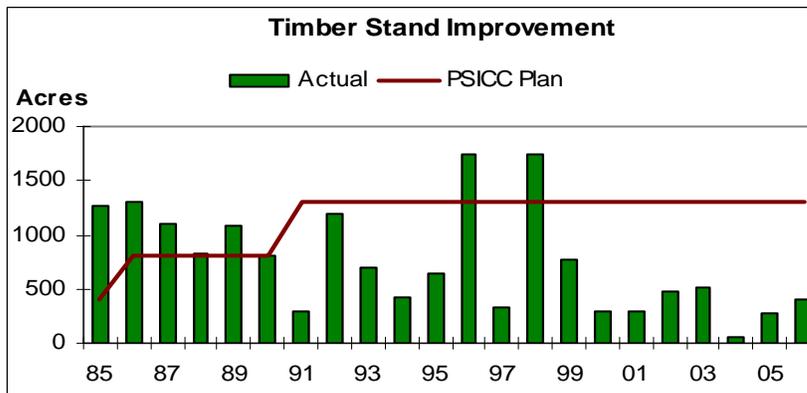


Figure 22. Acres of timber stand improvement: actual and PSICC 1984 Plan

The reforestation increases, beginning in FY1996, are due to the restoration efforts after the 1996 Buffalo Creek Fire and the large fires of 2002, including the Hayman fire that burned more than 137,760 acres. These events created a tremendous reforestation need on the Pike National Forest. Where the burning severity was moderate or high, the natural seed source has been lost for thousands of acres. To have a functioning ponderosa pine ecosystem in the future, seedlings need to be planted. We started reforestation efforts on the Hayman burn area in 2004 by planting 100 acre; 920 acres were replanted in 2005, and 672 acres in 2006. As funding is received for cone collection, greenhouse expenses, and planting contracts, reforestation will continue in areas of the large burns.

3.7. Fuels Treatment

A history of fire suppression, land use practices (such as widespread burning and logging in the late 1800s, heavy livestock grazing the late 1800s and early 1900s, and tree planting in the early 1900s) and climatic variation has, over the last century, altered fire regimes and associated fuel loading, landscape composition, structure, and function

across the Forests. As a result, the number, size, and severity of wildland fires have departed significantly from those of historical conditions – sometimes with catastrophic consequences. These negative effects of certain land-use practices on land health and sustainability have been recognized in recent years.

Recent examples of increasing wildland fire size and uncharacteristic severity in Colorado include the 2000 fire season in the Pike and San Isabel National Forests, where over 24,000 acres burned and 59 structures were destroyed. The 2002 Hayman fire in Colorado burned more than 137,760 acres and cost nearly \$44.2 million to suppress. To date, the Hayman fire is the largest wildland fire in the state of Colorado.

Over the past year the PSICC has integrated two strategies into the hazardous fuels program. The first is the Front Range Fuels Treatment Strategy which emphasizes the need to identify, prioritize, and rapidly implement hazardous fuels treatment projects within Colorado's Front Range. This strategy focuses on a large-scale rapid assessment of the hazardous fuel conditions along the Front Range, enabling the identification of 300,000 acres on the Pike National Forest alone where treatment needs are of the greatest concern. The second is the reintroduction of Integrated Resource Management with a heavy emphasis on overall vegetation management to improve forest health, reduce wildfire risks to communities and the environment, and correct problems associated with long-term disruptions of natural fire cycles that have increased the risk of severe wildland fires to fire prone and fire dependent ecosystems (the PSICC treated 20,246 acres in 2006). This second strategy addresses the need to accelerate management of:

1. Hazardous fuel loadings.
2. Increasing insect infestation problems.
3. Reducing wildland fire impacts.
4. Protecting and restoring high value watersheds and wildlife habitats.
5. Enhancing ecosystem sustainability and the sustainability of communities in high hazard priority areas within the PSICC.

The current fire risk and beetle infestations on the PSICC are linked by a common factor of overly dense forests which resulted from 100 years of fire suppression and the prolific growth of ponderosa pine and mixed conifer stands. Cycles of drought exacerbate the stress on overcrowded tree stands. An estimated 900,000 acres on the PSICC are overcrowded with dense stands of ponderosa pine, mixed conifer trees, and decadent growth from grass and shrub species. Along with a growing mix of homes situated within forested areas and the many high priority areas and communities at risk adjacent to or within the PSICC, we are faced with the dilemma of how to choose treatment areas and communities to work with. Although many communities and counties have demonstrated their support for fuels treatment, some have not yet done so or are at different stages of developing fire and fuels management plans and strategies. Meeting the objectives of the two strategies mentioned above and also of the Healthy Forest Restoration Act, the National Fire Plan, the Healthy Forest Initiative, and the 10-Year Comprehensive Strategy, requires a coordinated effort across landscapes to restore and maintain the health of fire prone ecosystems. Currently, 500,000 acres of high priority treatment areas have been identified throughout the PSICC.

3.7.1. Outlook for the Future

The key to the PSICC's success in fuels management will be extensive collaboration with the public and local, county, state, and other federal agencies to support specific treatment areas and types, along with the application of Wyden Amendment authorities and the Good Neighbor Policy to conduct fuels treatment work across boundaries. In five years the 500,000 acres of high priority treatment areas is projected to increase to 575,000 acres, an estimate based on the rate of tree growth and increased insect infestation and disease. If the PSICC continues to accelerate treatment work by increasing the Hazardous Fuels and Vegetation Management Program, about 36% of these priority acres will be treated after five years, and 70% after ten years. Treating hazardous fuels and insect and disease infestations should help reduce the impacts of wildfires on communities and restore health to fire adapted ecosystems. Programs that focus on restoration of fire prone and fire dependent ecosystems and better integration of vegetation management, forest health, wildlife, range, watershed, and other available dollars will be more aggressively explored.

4.0. Social Components

4.1. Heritage Resources

4.1.1. 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, major inventories (in terms of total acres surveyed) have occurred on grazing allotments (primarily on the San Isabel National Forest) in support of allotment management planning, and for proposed large fuels reduction and vegetation management projects. To support the Front Range Fuels Reduction Strategy, inventories have focused on the Rampart Range and the tributary drainages of the South Fork of the South Platte River north and west of Cheesman Reservoir; these areas are southwest of the Denver metropolitan area. In 2006 landscape level inventories were completed or continued in the Front Range area south of the Pike National Forest and in the Trout Creek Pass vicinity, San Isabel National Forest. 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), the canyons north of the Cimarron River in extreme southeast Colorado, Guanella Pass, and the west fringe of South Park. Total acres inventoried and sites evaluated (including those newly recorded) are shown in Figure 23 and Table 11. In FY2003 through FY2005, the PSICC exceeded compliance inventory targets due to the continuation of large-scale assessments related to National Fire Plan projects. However, in 2006, total inventory acres were less due to the completion of many of these projects.

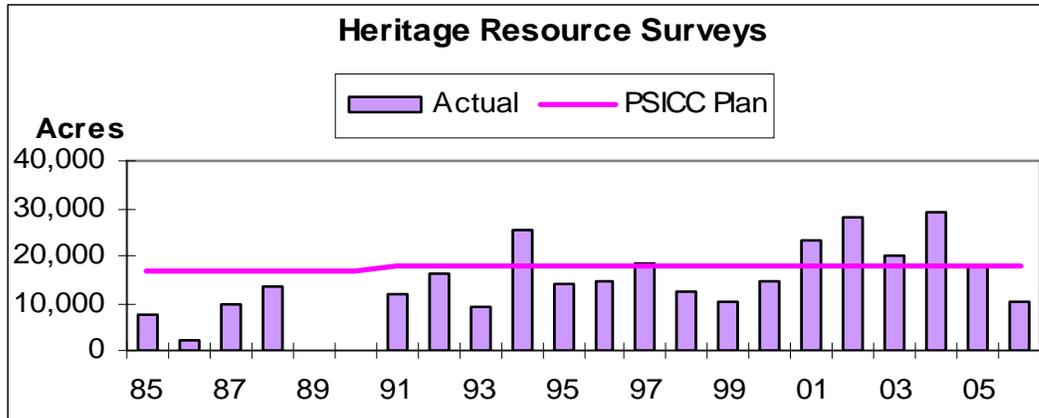


Figure 23. Heritage resource surveys conducted 1985 through 2006

4.1.2. 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.

4.1.2.a. Interpretive Efforts

Interpretive efforts on the Grasslands have focused on the Santa Fe Trail and the Picket Wire Canyonlands. For the Forests, the focus has been on historic mining regions, railroad and homestead sites, primarily in the Chalk Creek and Twin Lakes areas, and on historic recreation developments in the Squirrel Creek area west of Pueblo. Also, efforts to develop interpretive media at historic rental cabins (a RecFeeDemo project) were continued in 2006; this later effort focused on Brown Cabin and the Crescent Mining Camp, Salida District.

4.1.2.b. Protection Efforts

Protection efforts in FY2006 involved areas with known high densities of prehistoric sites. These included Picket Wire Canyonlands, Pony Park, and the Arkansas Hills. A total of 142 cultural properties were inspected to assess changing conditions. Major historic property repair and restoration projects in 2006 included Vogel Canyon State Historic District on the Comanche National Grassland, Interlaken Resort and Davenport Campground on the San Isabel National Forest, and Derby Cabin and Manitou Picnic Shelter on the Pike National Forest.

4.1.2.c. Public Outreach

Public outreach included eight Passport In Time (PIT) projects; these were paleontological excavations and archaeological site surveys in the Picket Wire Canyonlands and the Little Black Mesa area on the Comanche National Grassland, restoration and repair at the Interlaken Resort and Vicksburg Cemetery, an archaeological survey at Marshall Pass on the San Isabel National Forest, and site at Guanella Pass and Salt Creek on the Pike National Forest. PIT projects are designed to use volunteers to accomplish work that the PSICC could not do using appropriated funds.

4.1.2.d. Accomplishments

Accomplishments in resources interpreted and protected, and in public outreach opportunities were stable compared to FY2005. Work continued in 2006 on the advancement of the PSICC historic rental cabin project (a RecFeeDemo initiative). In preparation for rental, two cabins were restored and interpretive media were developed for three cabins. A major restoration project was continued at the Interlaken Resort, listed in the National Register of Historic Places; specifically, several volunteer groups supervised by professional restoration specialists, refurbished the Dexter Cabin – the former home of the Resort’s owner. A summary of accomplishments can be found in Table 11.

Table 11. Heritage resources accomplishments, 1994–2006

Heritage Activity Fiscal Year	Heritage sites interpreted	Public participation projects	Number of properties (cumulative)	Heritage sites preserved and protected	Heritage sites evaluated	Resource facilitation projects	Inventory/ acres surveyed
94	10	0	1,278	10	28	121	25,285
95	18	12	2,158	0	475	92	14,000
96	10	0	2,343	45	173	67	14,600
97	16	6	2,741	50	150	113	18,460
98	40	9	2,823	69	240	155	12,491
99	12	8	3,056	156	265	158	10,246
00	24	7	3,406	174	437	142	14,700
01	14	7	3,766	152	360	137	23,435
02	9	6	4,022	144	345	142	28,000
03	10	7	4,284	148	294	169	19,879
04	10	8	4,629	144	376	187	28,966
05	12	8	5,077	148	348	215	17,631
06	11	8	5,417	142	440	230	10,490

4.2. Recreation

Minimal new information was available for this section for FY2006; Table 14 has been added. Otherwise, the following information is reprinted from the FY2005 report.

The PSICC provides wilderness, scenic byways, wild and scenic rivers, campgrounds, picnic areas, motorized trails, fishing, National Scenic and Historic Trails, cabin rentals, a Christmas tree program and many other activities for its visitors. From the depths of Picket Wire Canyon to the summit of Mount Elbert the PSICC offers something for everyone.

Recreation visitor use data collection and reporting in the Forest Service has undergone dramatic changes since our 1984 Plan was approved. At that time data was reported using the Recreation Information Management (RIM) system, which contained detailed estimates of use on each Ranger District or smaller composite area. Use was measured in 12-hour visitor days. In 1987, RIM was abandoned and was replaced with the National Visitor Use Monitoring (NVUM) system in 2001. NVUM was designed as a statistically valid sample of visitor use at the level of a National Forest, but it uses visits as the basic measurement rather than visitor days. Samples or interviews are repeated every five years. On the PSICC NVUM was conducted in 2001 and was conducted again in 2006, using approximately 300 sample sites. Each National Forest is on a five year schedule. NVUM will be the standard monitoring protocol used to better understand the public's use of, value of and satisfaction with National Forest System recreation opportunities. Some correlations can be made between older visitor use (reported in visitor days) and NVUM visits, although many aspects of the older and newer data are not directly comparable. A complete copy of the FY2001 NVUM report is available for review; the 2006 report will be finished in the fall of 2006.

The PSICC has one of the heaviest recreation workloads in Region 2. Much of that can be attributed to its location near the Denver-Colorado Springs-Pueblo metropolitan areas, and Interstate-70 corridor are some of the fastest growing population centers in the U.S. Visitor use on the Forest for FY2001 is estimated at 4.0 million visits, placing the PSICC in the top 10 recreation forests in the nation. The top ten include the Mt. Hood near Portland, Oregon; Mt. Baker-Snoqualmie near Seattle; Wasatch-Cache near Salt Lake City; the Cleveland near San Diego; and the Angeles and San Bernardino near Los Angeles. Figure 24 shows combinations of visitor uses categories derived from 1996 data.

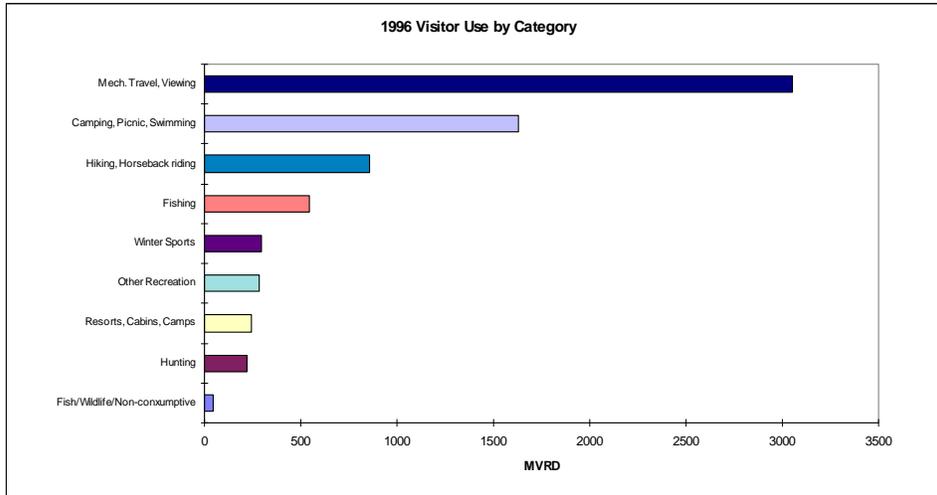


Figure 24. PSICC visitor use by category (1996 data)

Table 12 lists activity types and the percent participation compiled from the FY2001 NVUM report. From the FY2001 data, the top five recreation activities were; viewing natural features, relaxing, viewing wildlife, driving for pleasure, and hiking/walking. It is interesting to note that viewing natural features, driving for pleasure, and hiking and walking (mechanized travel, viewing, and hiking) still rank as the highest among those activities offered to forest visitors. The FY2001 report also shows increased participation in the activities of wildlife viewing, nature study, and gathering natural products (Fish/Wildlife/Non-consumptive visitor use).

Table 12. PSICC activity participation by primary activity (from FY2001 NVUM report)

Activity	Percent particip.	Activity	Percent particip.
Camping in developed sites (family or group)	8.6	Off-highway vehicle travel (4-2wheelers, 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

Activity	Percent particip.	Activity	Percent particip.
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
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

4.2.1. Developed recreation

Many recreation visits occur at developed facilities, particularly campgrounds, and day use areas (see Figure 21). These facilities are for the Forest Service by concessionaires. The PSICC has used concessionaires since 1993. Two different companies manage over 100 fee sites on our six mountain Districts. In 2005 they generated \$1.16 million in revenue. This resulted in fees to the government of approximately \$75,000 to be used on deferred maintenance projects. These permits will be advertised and re-issued in 2008. An increase in developed site capacity beginning in FY1997 (see Figure 25) is due primarily to the addition of developed trailhead parking areas. A small amount of capacity was lost during 2002 because of safety-related site closures (some fire-related), dredging a lake, and construction (approximately 60,000 reduction). Annually there are small closures as a result of construction projects in our developed facilities.

The PSICC also offers four cabins for overnight rental. These cabins are available through the Federal Lands Recreation Enhancement Act. One cabin is available year-round while the other three are available from May through November. This program generates about \$22,000 revenue annually which is used to make additional cabins available. In 2007, two additional sites will be available for use, Crescent Mining Camp and Dawson Cabin. Each of these sites provides visitors with a unique experience and a glimpse to the past.

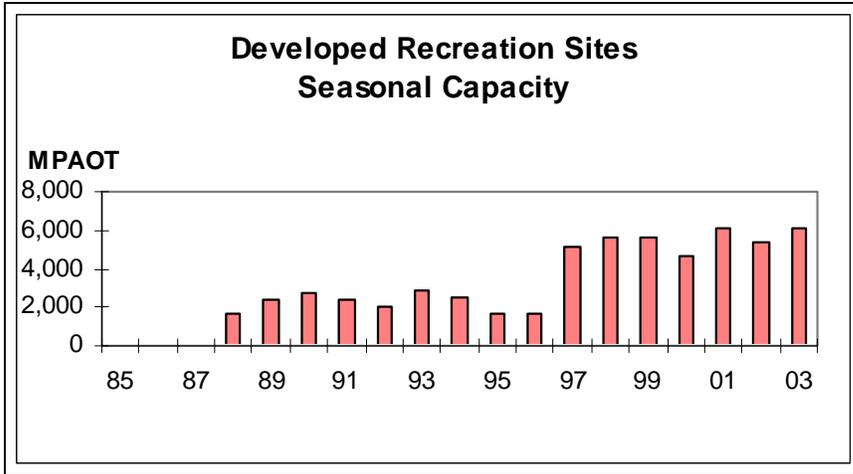


Figure 25. Developed recreation sites' seasonal capacity

The FY2001 NVUM report polled recreation visitors about the types of constructed facilities and special designated areas they used during their visits. This data is listed in Table 13. The five most-used types of facilities and were: roads, non-motorized trails, scenic byways, picnic areas, and Wilderness.

Table 13. Percentage use of facilities and specially designated areas on PSICC (from FY2001 NVUM report)

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

4.2.1.a. Recreation Facilities Backlog

The PSICC has a strong recreation component in its overall program. It is also urban in character because more than four million people live within commuting distance. This Forest is most heavily used on weekends as a result of our proximity to the Front Range population. Many of the developed campgrounds, which were built in the 1960s, are deteriorating. Operation and maintenance dollars have not kept pace with this deterioration, creating an increasing backlog of needed work. The agency has a target of reducing backlog maintenance by 25% per year for the next four years.

In FY2007 the PSICC will conduct a Recreation Facility Masterplan. This report will provide direction on closing economically marginal facilities and investing in others. This will also help address the maintenance backlog

Repair and maintenance of the existing infrastructure will be the focus of our capital improvement funds, in lieu of building entirely new facilities. Health, safety and sanitation projects will take priority. Increasingly stringent Colorado state water quality requirements will require an emphasis on upgrading and improving water systems.

4.2.2. Winter sports

In general, downhill skiing use has leveled off nationwide. Use on the PSICC parallels that trend in spite of the front-range population increases and pressure. In 2005 we had 231,000 skier visits. Figure 26 shows that capacity exceeds demand.

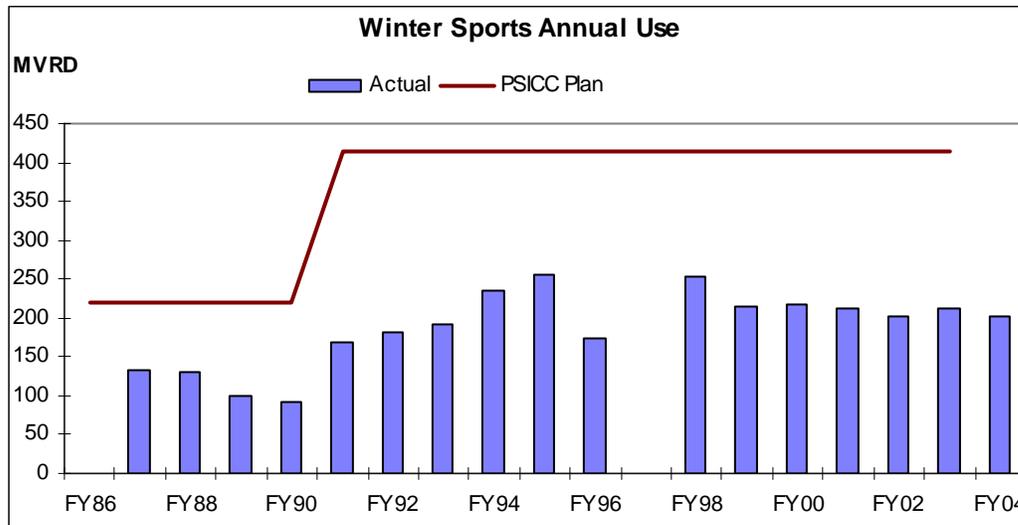


Figure 26. Winters sports annual use on the PSICC

The PSICC has two operating ski areas: Ski Cooper and Monarch Ski and Snowboard. One other area on the San Isabel National Forest, the Cuchara Valley Resort, remains closed.

4.2.3. Dispersed recreation: general forest areas

This section addresses those activities that occur outside of developed facilities. Because of the Forests proximity to the Denver-Colorado Springs-Pueblo metropolitan areas, the PSICC receives a large amount of dispersed recreation use.

Dispersed recreation constitutes the largest share of total recreation use. In recent years, visitor levels have exceeded projections made in the 1984 Plan. The FY2001 NVUM report lists many activities that fall into the Dispersed Recreation Use category (refer to Table 12). 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 are considered Dispersed Recreation.

Immediately following approval of the 1984 Plan, the PSICC recognized the importance of implementing the travel management direction in the 1984 Plan. In the fall of 2005 the Chief of the Forest Service initiated a new Travel Management Rule, in effect eliminating all off-road and trail motorized use. This new rule will be fully implemented by October 2009. The intent of the rule is to mitigate current and future natural resource damage associated with motorized use.

4.2.4. Wilderness

The PSICC has nine designated Wilderness areas, which together total approximately 449,000 acres (Table 14). Several of these areas cross Forest boundaries; the PSICC is the lead manager for three of those. In 2004 the Forest Service identified 10 management actions that would be completed for each Wilderness in the system over a 10-year period. The PSICC completed Wilderness education plans for three areas in 2004 and in 2005 began concentrating on developing management plans for fire and invasive plants.

Table 14. Designated Wilderness areas on the PSICC

Wilderness Area	Designation Date	National Forest	Approximate acreage (on the PSICC only)
Buffalo Peaks	January 1993	Pike and San Isabel	43,410
Collegiate Peaks	November 1980	San Isabel, Gunnison, White River	106,620
Greenhorn Mountain	January 1993	San Isabel	22,040
Holy Cross	November 1980	San Isabel, White River	15,000
Lost Creek	June 1980	Pike	58,040
Lost Creek Wilderness addition	January 1993		14,700
Mount Evans	June 1980	Pike, Arapaho	34,680
Mount Massive	October 1979	San Isabel	26,100
Sangre de Cristo	January 1993	San Isabel, Rio Grande	226,455
Spanish Peaks	February 1999	San Isabel	18,000

A wilderness study area, Brown's Canyon, is being considered by Congress for designation. This 20,000 acre area along the east side of the Arkansas River on the Salida District includes 12,100 acres on the PSICC.

Routes for climbing peaks over 14,000 feet have become particularly popular and heavily used. The FY2001 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) or approximately 134,000 recreation visitor days (RVDs).

4.3. Scenic Resources

No new information was available for this section for FY2006. The following information is reprinted from the FY2005 report.

Scenic quality is being maintained. Activities with the potential to adversely affect the scenic integrity have been carefully designed to minimize those affects. The new Scenery Management System (SMS) will be implemented following the completion of revision of the 1984 Plan. For more information about the revision, see the Web site at http://www.fs.fed.us/r2/psicc/projects/forest_revision/index.shtml.

Direction in the Built Environment Image Guide⁵ (BEIG) is followed to ensure that new buildings, signs, or other human-made features compliment the natural and cultural settings.

4.4. Travel Management

Travel management is a persistent and growing topic of concern for the PSICC. Increasing population pressures and increased sales and use of off-highway vehicles are resulting in greater resource impacts and potential for conflict. Unmanaged recreation has been identified as one of the four major threats to long-term forest health, and off-highway vehicle use constitutes a significant component of this threat.

Roads analyses have been conducted in several locations at the watershed and multiple-watershed scales, including the Hayman burn area. In addition, Forest-scale roads analysis was completed on the Grasslands in FY2004 as part of the 1984 Plan revision effort. Forest-scale roads analysis is currently being conducted for the Pike and San Isabel National Forests, in conjunction with the revision of the 1984 Plan.

The PSICC is continuing an aggressive effort to identify and correct errors and inaccuracies in its roads and trails data, including tabular and geo-spatial data. This is becoming increasingly important for travel analysis and planning work. The release of the final travel management rule (36 CFR parts 212, 251,261, and 295) is further elevating the importance of travel management on a nationwide basis. Travel management planning and implementation will be closely tied to revision of the 1984

⁵ U.S.D.A., Forest Service. 2001. FS-710. The Built Environment Image Guide for the National Forests and Grasslands. Washington, D.C.

Plan, given the direct relationship with, and impacts to, all major resource areas.

Figure 27 shows the total miles of roads identified as system roads that are authorized for public use. This use can vary from full use by the public with motor vehicles to administrative use only by the PSICC and designated permittees. Not included in the chart are Maintenance Level 1 (Intermittent Use) roads that are generally closed to all vehicle traffic for extended periods and which may be re-opened for specific resource needs. With continued shortfalls in maintenance funding, additional miles of road are being rendered unsuitable for use by passenger cars and moved into a high-clearance vehicle standard. This reflects a nationwide trend.

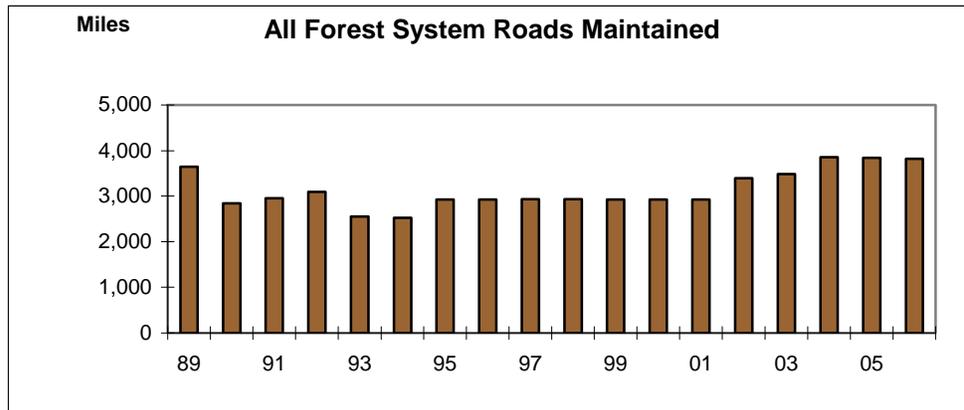


Figure 27. All maintained Forest System roads on the PSICC

The apparent increase in miles in FY2002 is because temporary roads that serve oil and gas operations on the Grasslands were added to the system to better reflect actual conditions. Typically, temporary roads are obliterated after a specified short-term use (for example, after vegetation treatment is performed). Many of the oil and gas roads are longer-term, and they are largely available for, and passable to, the general public. Hence, their administrative classification was changed and these miles were added to the system. Additional changes are the result of ongoing corrections to the Forests and Grasslands transportation database, as opposed to changes in actual on-the-ground mileage.

5.0. Economic Components

5.1. Capital Investments

The Capital Investment Program (CIP) consists of two parts: one funded at the Regional level, and one funded at the Forest level. Before FY1992, CIP was primarily for roads and general purpose timber and recreation use. After FY1992, the emphasis shifted to include developed recreation areas and trail construction and reconstruction. PSICC's part of the CIP has been funded in the \$250,000 to \$500,000 range 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.

5.2. Returns to the U.S.

A wide range of activities generates revenues for the U.S. Treasury. These include special-use permits (such as ski areas, roads, waterlines, powerlines, outfitter-guides, recreation residences), grazing permits, fuel wood permits, Christmas tree permits, transplant sales, timber sales, and others. Revenues from oil and gas leases are not shown in Figure 28, but are included in Appendix B of this report.

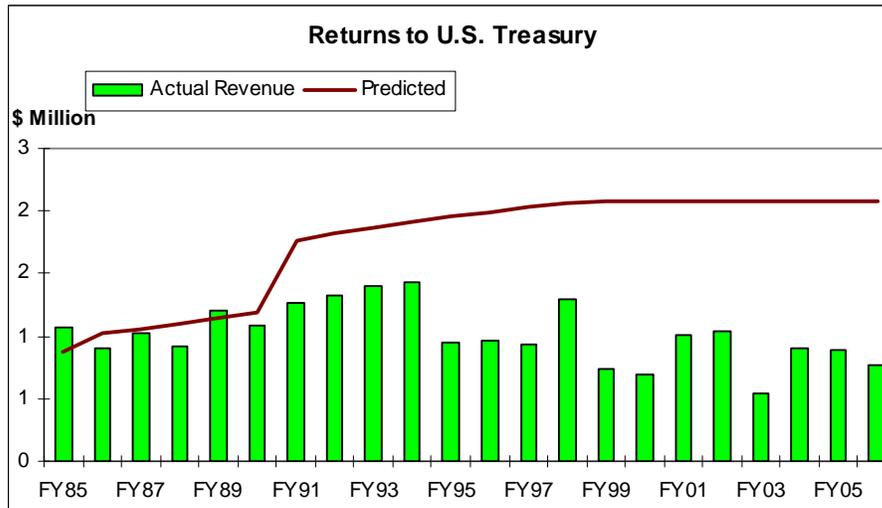


Figure 28. Returns to U.S. Treasury FY1985 – FY2006: actual and predicted

5.3. Payments to Counties

In most cases, 25% of the revenues paid into the U.S. Treasury are returned to the counties where the revenue-generating activities took place. The flow of these funds to counties is shown in Table 15. The most dramatic change occurred on the Cimarron National Grassland in 1987, when a number of oil and gas leases reverted to the U.S. Revenues from those leases have declined in recent years as production has declined.

Table 15. 25% fund payments to counties by proclaimed units

Nominal Year Dollars					
Fiscal Year*	Pike	San Isabel	Cimarron*	Comanche*	PSICC Total
85	115,898	123,019	77,852	145,707	462,476
86	103,787	107,703	39,027	103,185	353,702
87	105,173	130,414	4,240,391	72,730	4,548,708
88	92,751	119,698	3,028,349	45,236	3,286,034
89	127,780	149,169	1,514,045	47,240	1,838,234

90	122,124	127,901	1,007,529	64,605	1,322,159
91	134,263	149,236	541,837	111,347	936,683
92	117,394	172,006	428,047	106,777	824,224
93	157,919	152,076	737,839	106,463	1,154,297
94	162,181	175,534	785,574	59,587	1,182,876
95	91,038	134,596	503,049	117,975	846,658
96	94,520	142,053	627,538	221,394	1,085,505
97	92,591	120,173	170,706	632,708	1,016,178
98	157,857	149,073	473,494	71,530	851,954
99	92,481	90,829	0	0	183,310
00	94,249	73,177	0	0	167,426
01	127,424	180,922	516,309	71,617	896,272
02	142,743	183,219	983,052	72,637	1,381,651
03	140,170	184,712	505,867	47,166	877,915
04	160,996	196,439	917,822	19,757	1,295,014
05	157,880	203,368	750,020	77,932	1,189,200
06	159,371	205,395	0	0	364,766

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

6.0. Amendments to the 1984 Land and Resource Management Plan

6.1. Existing Amendments

There are 31 amendments to the 1984 Plan as shown in Table 16. For several years following approval of the 1984 Plan, it was believed 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 established that this practice was not required, amendments of this nature were discontinued. The last 1984 Plan amendment was completed in August 2005.

Table 16. Summary of amendments to the 1984 Plan

Amend ment #	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.

Amend ment #	Date Approved	Summary
3	07/24/87	<i>Revised boundary of the Comanche Lesser Prairie Chicken Habitat Zoological Area (designated a Colorado Natural Area February 13, 1987).</i>
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 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.

Amend ment #	Date Approved	Summary
16	01/03/89	Established three-year Timber Sale and Road Construction/Reconstruction Scheduled (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.

Amend ment #	Date Approved	Summary
29	6/02	Amends the Forest Plan to establish the Dick's Peak Communication Site.
30	08/05	Amends the Forest Plan to establish an updated list of Management Indicator Species (MIS)
31	06/04	Amends the Forest Plan to establish a new management area along the South Platte River between Elevenmile Reservoir and Strontia Springs Reservoir, and along the North Fork of the South Platte River from below Bailey to the confluence with the South Platte River.

6.2. Identified Need for Changing the 1984 Plan through an Amendment or Revision

6.2.1. Amendments to the 1984 Plan

In FY2006 there were no new amendments recommended to the 1984 Plan.

6.2.2. Revision of the 1984 Plan

In FY2006 two revisions to the 1984 Plan were underway: the development of a land management plan for the Cimarron and Comanche National Grasslands (Grasslands); a revision of the 1984 Plan for the Pike and San Isabel National Forests (Forests).

The Grasslands Plan, prepared under the 2005 National Forest System Land Management Planning Rule, was scheduled for release in September 2006. However, it was released for a 30-day pre-decisional review and objection period on March 8, 2007. Work continues on this Plan.

The revised Forests Plan pre-work was initiated in 2005, and continued throughout FY2006. The scheduled completion for the final Forests Plan is September 2009.

For more details, see the Web site at http://www.fs.fed.us/r2/psicc/projects/forest_revision/index.shtml.

7.0. Information Sources for the Annual Monitoring Report

The information in this FY2006 annual monitoring report is based on the PSICC Management Attainment Reports, Final Budget Documents, INFRA (Infrastructure) database, SILVA (silviculture) reports, NVUM (recreation uses), Regional Revenue and 25% Payments to Counties reports, individual program accomplishment reports, and other miscellaneous documents. All referenced documents are available for review at the PSICC Supervisor's Office located at:

Pike and San Isabel National Forests, and
Cimarron and Comanche National Grasslands
2840 Kachina Drive
Pueblo, CO 81008

Additional copies of this report are available by writing to or visiting the address above, by calling 719-553-1400, or on the Web at <http://www.fs.fed.us/r2/psicc>.

8.0 Summary Evaluation and Conclusions

8.1. Are the 1984 Plan's goals and objectives being met?

Although the goals and objectives of the 1984 Plan are being pursued to some degree, the rate of accomplishment is different than predicted in 1984. The ambitiousness of the overall program has proven to exceed the available funding levels during the years of implementing the 1984 Plan. In addition, the economic conditions and social demands for goods and services have also changed.

8.2. Are the 1984 Plan standards and guidelines being followed?

Decision documents signed by responsible officials certify that projects are designed to be consistent with the 1984 Plan, as amended. Monitoring results support those findings.

9.0. References

The following references are for sections 3.1, 3.2, 3.3, 3.4 only

- Carle, F.L.; Strub, M.R. **1978**. A new method for estimating population size from removal data. *Biometrics* 34: 621-630.
- Cully, J.F.; Johnson, T.L. **2005**. 2005 Annual Report: A summary of black-tailed prairie dog abundance and occurrence of sylvatic plague. Challenge Cost-share Agreements 01-CS-11030300-052 and 01-CS-11021200-112. Unpubl, report on file at Comanche office, Springfield CO, and Cimarron office, Elkhart, KS.
- Gober, P. **2000**. 12-month administrative finding, black-tailed prairie dog. *Federal Register* 65:5476-5488.
- Kotliar, N.B.; Baker, B.W.; Whicker, A.D.; Plumb, G. **1999**. A critical review of assumptions about the prairie dog as a keystone species. *Environmental Management* 24:177-192.
- Kotliar, N.B. **2000**. Application of the new keystone-species concept to prairie dogs: how well does it work? *Conservation Biology* 14:1715-1721.
- Kretzer, J.E.; Cully, J.F. **2001**. Effects of black-tailed prairie dogs on reptiles and amphibians in Kansas shortgrass prairie. *Southwestern Naturalist* 46:171-177.
- Rogers, K. **2005**. JakeOmatic. Version 2.2. Colorado Division of Wildlife, Steamboat Springs, CO.
- Svingen, D.; Giesen, K. **1999**. Mountain Plover (*Charadrius montanus*) response to prescribed burns on the Comanche National Grassland. *Journal of the Colorado Field Ornithologists* 33(4): 208-212.
- Toombs, T. **1997**. Burrowing owl nest-site selection in relation to soil texture and prairie dog colony attributes. Masters thesis, Colorado State University, Fort Collins, CO.

10.0 List of Preparers

This annual monitoring report was prepared and reviewed by the following staff specialists on the PSICC (Table 17).

Table 17. List of preparers by program

Program(s)	Program manager or specialist
Aquatic and riparian resources	Brian Cox
Budget and finance	Joe Douglass, Kathy Sutphen
Fire and fuels	Aaron Ortega
Heritage	Al Kane
Hydrology, soil, air	Dana Butler
Land management planning	Barb Masinton
Minerals	Sara Mayben
Range	Scott Woodall
Recreation, scenery, wilderness, visual resource management	Neal Weierbach
Timber	Gary Roper
Transportation	Jerry Stevenson
Water rights	Misty DeSalvo
Wildlife, fisheries, and rare plants, threatened, endangered, and sensitive species	Brian Cox

Appendix A: Timber Harvest History, 1987 through 2006 (Cutting Method and Acres Harvested)

Table A-1. Timber Harvest History, 1987 through 1996 (Cutting Method and Acres Harvested)

Cover Type & Cutting Method	87	88	89	90	91	92	93	94	95	96	Total acres
Ponderosa Pine											
Selection	0	0	0	0	0	0	0	0	0	0	0
Intermediate cut, sanitation/salvage, commercial thin	170	92	243	243	364	1,312	1,459	1,105	27	0	5,015
Clearcut	11	15	27	0	0	0	0	0	0	0	53
Preparatory cut (shelterwood)	0	26	0	0	0	0	0	0	0	0	26
Seed cut (shelterwood)	83	251	378	428	0	80	113	0	0	0	1,333
Removal cut (shelterwood)	47	38	176	67	0	0	0	0	0	0	328
Aspen											
Clearcut	40	101	81	85	140	69	73	49	13	7	658
Sanitation/salvage	0	0	0	0	0	0	0	5	9	0	14
Lodgepole Pine											
Clearcut	57	151	43	38	176	47	156	102	54	0	824
Seed cut	0	0	0	0	66	107	12	0	0	0	185
Removal cut	0	0	0	0	0	0	13	0	0	16	29
Commercial thin	0	0	0	0	0	0	0	0	50	0	50
Sanitation/salvage	0	0	0	0	0	0	8	0	0	0	8
Engleman Spruce/Fir											
Clearcut	2	64	57	0	150	64	44	0	0	0	381
Preparatory cut (shelterwood)	0	255	0	54	30	0	27	0	108	0	474
Seed cut (shelterwood)	0	0	34	0	553	0	175	430	0	0	1,192
Removal cut (shelterwood)	0	7	0	0	82	0	72	0	0	0	161
Selection (uneven-aged mgmt)	0	286	164	150	27	152	0	0	0	41	820
Mixed Conifer (Douglas-fir)											
Intermediate cut, salvage, commercial thin	0	15	1,689	229	47	416	232	232	278	0	3,138
Clearcut	0	10	0	0	31	13	4	0	0	0	58
Preparatory cut (shelterwood)	0	386	0	0	0	0	0	0	0	0	386
Seed cut (shelterwood)	0	0	0	0	56	389	51	0	0	0	496
Removal cut (shelterwood)	0	0	59	79	261	0	0	0	0	0	399

Cover Type & Cutting Method	87	88	89	90	91	92	93	94	95	96	Total acres
Other Species											
Sanitation salvage, special cut, selection, x-mas trees	0	0	0	0	0	0	93	16	0	0	109
Total Acres Cut	410	1,697	2,951	1,373	1,983	2,649	2,532	1,939	539	64	16,137

Table A-2. Timber Harvest History, 1997 through 2006 (Cutting Method and Acres Harvested) and Total Acres 1987 – 2006

Cover Type & Cutting Method	97	98	99	00	01	02	03	04	05	06	Total acres	Total acres 1987-2006
Ponderosa Pine												
Selection	0	0	0	0	0	337	80	0	0	0	417	417
Intermediate cut, sanitation/salvage, commercial thin	448	89	75	0	180	1,429	1,228	3,150	3,674	1,359	11,632	16,647
Clearcut	0	0	0	0	0	0	0	0	0	0	0	53
Preparatory cut (shelterwood)	0	0	0	0	0	0	0	0	0	0	0	26
Seed cut (shelterwood)	0	26	0	0	0	0	0	0	0	0	26	1,359
Removal cut (shelterwood)	0	0	300	0	0	83	0	0	0	0	383	711
Aspen												
Clearcut	9	0	0	0	0	0	0	0	0	0	9	667
Sanitation/salvage	0	37	0	0	0	21	10	0	0	0	68	82
Lodgepole Pine												
Clearcut	130	14	25	0	0	7	5	0	0	0	181	1,005
Seed cut	0	0	0	0	0	53	0	0	0	0	53	238
Removal cut	0	0	0	0	0	0	0	0	0	0	0	29
Commercial thin	0	0	0	0	0	5	55	0	0	0	60	110
Sanitation/salvage	0	0	0	0	0	220	15	0	191	88	514	522
Engleman Spruce/Fir												
Clearcut	0	0	0	0	0	36	0	0	0	0	36	417
Preparatory cut (shelterwood)	0	0	0	0	0	108	0	0	37	36	181	655
Seed cut (shelterwood)	88	88	0	0	0	0	0	0	0	0	176	1,368
Removal cut (shelterwood)	0	23	0	0	0	0	0	0	0	0	23	184
Selection (uneven-aged mgmt)	65	7	0	0	0	0	0	0	0	0	72	892
Mixed Conifer (Douglas-fir)												
Intermediate cut, salvage, commercial thin	208	0	290	0	0	59	0	0	434	1,329	2,320	5,458

Cover Type & Cutting Method	97	98	99	00	01	02	03	04	05	06	Total acres	Total acres 1987-2006
Clearcut	0	0	0	0	0	0	0	0	0	0	0	58
Preparatory cut (shelterwood)	0	0	0	0	0	0	0	0	0	0	0	386
Seed cut (shelterwood)	0	0	0	0	0	0	0	0	0	0	0	496
Removal cut (shelterwood)	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	10	0	0	0	0	0	10	119
Total Acres Cut	948	284	690	0	180	2,368	1,393	3,150	4,336	2,812	16,161	32,298

APPENDIX B. PSICC Revenues 1985 to Present

Table B-1. PSICC Revenues 1985 to Present

FY	National Forest Funds (\$)						Trust Funds (\$)				
	Timber Sales	Special Uses /2	Mineral Leases 3/	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		
86	77,242	232,052	514,733	323,447	93,933		140,503	0	32,897		
87	95,106	286,770	17,167,292	323,091	92,629		188,588	0	41,358		
88	20,132	272,773	12,222,776	342,096	107,098		110,467	548	68,248		
89	67,031	269,855	6,151,595	512,328	154,048		132,262	26,860	38,958		
90	56,798	280,321	4,206,179	371,214	129,094		106,459	80,790	57,778		
91	66,923	332,516	2,476,165	377,950	173,307		115,195	119,780	84,895		
92	32,070	447,066	1,976,099	436,734	207,661		79,496	99,305	18,460		
23	153,532	492,503	3,218,247	269,658	195,529		80,045	142,544	65,128		
94	112,635	113,258	3,296,673	667,833	119,670		191,398	102,199	127,836		
95	108,042	148,345	2,438,829	468,555	60,429		84,106	49,530	28,790		
96	179,015	65,642	3,295,406	498,421	73,460		109,114	40,175	0		
97	86,869	161,507	3,131,603	490,425	81,569		53,260	59,482	0		
98	67,571	483,854	2,118,483	570,171	69,018		54,299	44,418	0		
99	33,442	149,670	157	427,176	27,384		68,213	27,197	0		
00	78,324	327,975	203,661	138,361	48,044	26,416	63,402	16,083	0	0	0
01	73,083	468,512	4,133,042	242,038	66,276	27,979	102,839	20,462	0	403	2,700
02	60,338	516,540	4,189,001	185,654	68,160	30,993	116,416	47,634	0	13,696	0
03	66,442	281,719	2,168,132	69,321	18,104	21,078	12,264	76,737	0	0	0
04	25,077	476,212	22,159	189,276	20,903	42,627	38,357	106,214	0	0	0
05	38,539	489,468	29,222	198,937	33,020	40,512	35,762	49,794	0	0	0
06	22,779	551,960	4,806	7,034	27,021	41,560	44,958	65,927	0	0	0

1/ Nominal year dollars

2/ Beginning in FY2000, Special Uses includes Recreation Special Uses and Land Uses

3/ In FY2000, mineral lease revenues were available for all units with the exception of the Cimarron (traditionally the bulk of these revenues comes from the Cimarron)

Certification

The 1984 land and resource management plan (1984 Plan) for the PSICC, as currently written, is sufficient to guide implementation for the next year. There are several improvements that could be made to the 1984 Plan, but they are not required to meet the goals and objectives of the 1984 Plan.

Currently, revision of the 1984 Plan is underway; two Plans will be produced:

1. A stand-alone land management plan for the Cimarron and Comanche National Grasslands (Grasslands), and
2. A revised land management plan for the Pike and San Isabel National Forests (Forests).

The Grasslands Plan was scheduled for release in September 2006. The Forests Plan is scheduled for release in September 2009. The following update represents the current situation, at the time of this certification, involving both the Grasslands Plan and Forests Plan.

The Grasslands Plan, prepared under the 2005 National Forest System Land Management Planning Rule, was released for a 30-day pre-decisional review and objection period on March 8, 2007. This release took place three weeks prior to the U.S. District Court, Northern District of California (9th Circuit) final decision in *Citizens for Better Forestry v USDA; Defenders of Wildlife v Johanns* (case 3:04-cv-04512-PJH; filed 03/30/2007), which enjoined implementation and utilization of the 2005 Planning Rule. To be in compliance with that decision, all land management plan revision processes associated with the 2005 Planning Rule were and continue to be suspended until further notice. This includes any tasks required to finalize the Grasslands Plan.

The pre-work phase for the revised Forests Plan, which was initiated in 2005, is continuing until the point of Plan development. Pre-work can be carried out under the existing 1982 or 2000 Planning Rules, while still being in compliance with the court order.

On August 23, 2007, a proposed rule for land management planning was published in the Federal Register (Vol. 72, No. 163) for a 30-day comment period.

Information regarding the March 30, 2007 court case and the August 23, 2007 proposed rule can be found at: http://www.fs.fed.us/r2/psicc/projects/forest_revision/index.shtml

/s/ Robert J. Leaverton
Robert J. Leaverton
Forest Supervisor

September 12, 2007
Date