FISCAL YEAR 2001
MONITORING AND EVALUATION REPORT

Little Missouri, Cedar River, Grand River, & Sheyenne

National Grasslands

of the

Dakota Prairie Grasslands

This document was prepared in cooperation with the District Rangers of the Little Missouri, Cedar River, Grand River, and Sheyenne National Grasslands and the Resource Program Managers in the Supervisor's Office of the Dakota Prairie Grasslands.

Approved by: David M. Pieper

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Date: 9/30/02

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I. INTRODUCTION

This report documents the major activities that have occurred on the Little Missouri, Cedar River, Grand River, and Sheyenne National Grasslands for Fiscal Year 2001. These National Grasslands are divided into four administrative units, or districts. They are the Grand River District, consisting of the Cedar River and Grand River National Grasslands; the McKenzie District, made up of the northern one-half of the Little Missouri National Grassland; the Medora District, which is comprised of the southern one-half of the Little Missouri National Grassland; and the Sheyenne District, which consists of the Sheyenne National Grassland.

Previously, these districts were administered by the Custer National Forest. Midway through Fiscal Year 1998, a new unit, the Dakota Prairie Grasslands, was formed to administer these districts. This new unit is headquartered in Bismarck, North Dakota. Dave Pieper is the Grasslands Supervisor. While the DPG unit has separated from the Custer, we are still in the process of updating signs throughout the grasslands to aid the public in identifying the new administrative unit.

The USDA Forest Service, in consultation with its shareholders, manages the land and resources of the National Forest System under the guidelines described in Forest and Resource Management Plans. Commonly known as Forest/Grassland Plans, these documents are agreements between the public, or shareholders, and the Forest Service. The plans are arrived at through a lengthy and deliberate process that involves all interested parties. Forest/Grassland Plans are designed to guide the management of a specific national forest or grassland area for a period of 10 to 15 years.

The Dakota Prairie Grasslands is currently part of the Northern Great Plains Management Plans Revision process. The Final Environmental Impact Statement and the Revised Plan were released for public review and comment on July 27, 2001. Comments were accepted for a 6-month period ending January 22, 2002. There are a wide variety of viewpoints on the Revised Plan, the planning process, and the decisions that should be made with regards to management of these grasslands. After extensive review and analysis of the comments received, in addition to consultation with the North Dakota Congressional Delegation and Governors Schafer and Hoeven, the Record of Decision (ROD) was signed on July 31, 2002. Implementation began 7 days from the publication of the legal notice in the Bismarck Tribune, which was August 14, 2002.

In order to help both the Forest Service and the public determine how well actual day to day management meets the stated goals in the Custer Forest Plan, Grassland managers monitor activities occurring on the ground and evaluate the results. The Custer National Forest Plan (1987) addresses monitoring in Chapter IV. The specific monitoring elements are described on pages 105-110. Throughout the rest of this report, the items referred to, and the major headings used, are from these pages. Since they do not apply to the National Grasslands, Categories "B. Wilderness" and "E. Timber" will not be discussed in this report. In addition, we have also begun monitoring items included in Chapter 4 of the Revised DPG Plan. We have included discussions of these undertakings as well (see Appendix A). This will be the last Annual Monitoring Report accomplished under the Custer Plan for the Dakota Prairie Grasslands.

Monitoring looks at management activities in three ways:

Implementation Monitoring determines if plans, prescriptions, projects, and activities are

being accomplished in compliance with Forest/Grassland Plan objectives, standards, and guidelines (i.e. Did we do what we said we would?).

Effectiveness Monitoring determines if plans, prescriptions, projects, and activities are producing identifiable results in moving toward a desired future condition as identified in the Forest/Grassland Plan (i.e. Did our actions accomplish what we wanted?).

Validation Monitoring determines if the assumptions, data, and models used to develop the Forest/Grassland Plan are correct, or if there are better ways, given new information and technology, to address resource management challenges.

Implementation monitoring is generally done as projects are implemented on the ground. Much of the day-to-day activity of district personnel is devoted to assuring that we do what we said we would do. At the end of the year, we can look at broad program areas to see if we have accomplished the level of activities envisioned in the Forest/Grassland Plan. Monitoring Item C6 of the Custer Forest Plan, "At least 90 percent of planned wildlife habitat targets are met," is an example of implementation monitoring.

This report will focus primarily on effectiveness monitoring. Monitoring Item C1, "Has effective wildlife habitat decreased by more than ten percent over levels estimated in the Forest Plan analysis?" is an example of effectiveness monitoring.

Validation monitoring is often done at levels above the National Forest or Grassland through the development of more sophisticated models for simulating the effects of proposed action. Few, if any of the items in this report address this type of monitoring.

Section II of this report describes what progress had been made to date in implementing and monitoring each element of the Custer Forest Plan that is applicable to the National Grasslands. Section III then summarizes how the plan has been modified, or amended, in response to new information or changing conditions. Lastly, Section IV describes the revision process.

II. IMPLEMENTATION PROGRESS and MONITORING RESULTS

This section addresses the monitoring items described in Chapter IV of the Custer Forest Plan (1987) and discusses the accomplishments made in meeting Forest/Grassland Plan goals. All other components of the Custer Forest Plan (objectives, standards and guidelines, and monitoring) were developed to move the Forest/Grassland condition toward the desired goals described in the Forest Plan. Accomplishments are listed below under the headings as they appear in the monitoring section of the Custer Forest Plan.

A. RECREATION

The Dakota Prairie Grasslands (DPG) provides a wide spectrum of recreation opportunities. Of these, hunting is the most popular followed by travel/viewing scenery and bicycling.

The Grand River/Cedar River District annually hosts a fishing day, bow and arrow shoot and black-powder shooting event. On this district, visitor use is moderate. People typically recreate in activities such as camping, picnicking, hunting, and fishing, with hunting being the most popular.

Located further east, the Sheyenne Ranger District attracts photographers, birders, horseback riders, and others interested in the rare plant communities present in a tall-grass prairie. Horseback riding and motorized travel/viewing scenery are the most popular

activities. This year the district sponsored the first annual Prairie Day, where visitors were treated to a variety of tours and activities including bird watching, viewing wild flowers, listening to talks given by professionals on wetland ecology and prairie invertebrates, and taking wagon rides through the prairie. Activities were also provided for children.

In addition, Sheyenne Ranger District staff guided 15 other groups on nature and information tours of the tall-grass prairie. The brochure of the North Country Trail (NCT) was reprinted, and a professional editor designed the layout and edited the soon to be printed Explorer's Guide.

In proportion to the other grasslands on the DPG, the Little Missouri National Grassland (LMNG) receives the largest number of visitors each year. The Medora District hosts an annual fishing day. For 2001, a DPG recreation specialist resumed the highly successful Explorer Series, and plans to expand this series to other Ranger Districts in 2002. Fee demo funds purchased an industrial grade riding lawnmower used to maintain all LMNG developed sites. Forest Service staff processed and administered several special use permits and outfitter guide permits. Districts successfully involved Casey Program adolescents in several recreation and heritage projects. The McKenzie District hosted both an endurance ride for horses and an epic mountain bike ride.

The Maah-Daah-Hey Trail continues to experience an explosion in use by mountain bikers and horse riders. National magazines feature it, and the Trail has become a major focus of North Dakota Tourism advertising efforts. The Maah-Daah-Hey Trail Association continues to be an important partner in trail management and maintenance.

DPG personnel also worked on the National Grasslands Handbook, a quick reference guide of facts on all the Forest Service Grasslands in North America. The handbook is scheduled for completion in 2002.

Heritage

National Grassland archaeologists were able to show further gains and accomplishments in Section 110 type activities for 2001.

The Sheyenne Ranger District continues to lead the DPG in prescribed fire treatments. Project areas are relatively small and consist of burns in areas of encroaching willows on the open dune plains. An increase in willows is due to the rise in the water table and enlarged areas of standing water over the grassland. No cultural surveys were conducted on these prescribed fires as they are in areas of low probability and little potential for impact to cultural resources.

For 2002, the Medora Ranger District is discussing the possibility of prescribed fire in Ponderosa Pine stands located in the southwest portion of the district. Prescribed fires in these badland wooded areas will require a heritage survey prior to implementation. This is due to the high potential for the presence of standing eagle trapping lodges, log cabins and site types that may be adversely affected by the fire treatments. Cultural resource surveys will be conducted as needed in the coming year.

We began the Woods Cabin (32MZ1270) restoration project in 2001. This historic site is the only early 1900 homestead era structure that remains standing on the DPG. Dan Woods, the original owner, used cottonwood logs to construct the two-room cabin in 1932. During the summer of 2001, the Region 1 Historic Preservation Team from Missoula replaced the roof

purloins and sheathing boards, along with the dirt and scoria roof covering. They spent two weeks in the reconstruction of the cabin site. The cabin renovation was also a Passports In Time project. Two individuals volunteered their time for the project. Seven Casey Program adolescents donated seven and a half-days of work. This completed the first stage of the reconstruction.

Further work will be done the summer of 2002 using the Casey Program to remove flooring and the cement chinking on the outer and inner walls. The Region 1 Historic Preservation Team will return in 2003 to finish the cabin renovation. The reconstructed building will eventually serve as a rental. A trail connecting the cabin to the Maah-Daah-Hey Trail may also be possible. Woods Cabin will be the only cabin rental on the DPG. It will provide visitors with a unique opportunity to experience an historic setting from the early homesteading period on the Northern Great Plains.

Work continues on plans for an overlook and trail at Tobacco Gardens for the Lewis and Clark Bicentennial. The project will feature a kiosk interpreting the location where Cruzat shot Merewether Lewis on August 11, 1806. Discussion with Calvin Grinnell, of the Three Affiliated Tribes, on further interpretation and an alternate version of the death of Sakakawea for possible signing at this kiosk overlook continues. This facility will be constructed in 2003.

The DPG Heritage program continued to fund Amy Mossett, a Mandan/Hidatsa Native American, to make presentations of Sakakawea to school children and other groups. DPG heritage personnel and line officers continue to formally and informally consult with the Three Affiliated Tribes (Arikara, Mandan and Hidatsa) and Standing Rock Sioux on locations of traditional cultural properties and other issues.

What is the actual developed and dispersed recreation use compared with projected use levels? (A1)

In FY01 demo fees were collected at two developed campgrounds on the DPG, Buffalo Gap on the Medora District, and CCC on the McKenzie District. At Buffalo Gap, fees collected totaled $1,387, up 1% from FY00; at CCC fees collected were $1,549, also up 1% from FY00. The only slight increase in use may be contributed to the fact that both campgrounds underwent construction in FY01. CCC received new picnic tables, had gravel placed around each site, and saw the addition of garbage dumpsters. In Buffalo Gap, roads were totally repaved, approximately 15 sites were converted to universally accessible sites, 3 toilet facilities were replaced, and a coin-operated shower and group picnic site were added.

Also in FY01, recreation staff began working on a long-range recreation management plan for the Grasslands to answer questions on future needs for trails, developed facilities, and a range of recreation opportunities. For FY02, the National Visitors Monitoring Survey (NVUM) began October 1st 2001 and continues through September 30th 2002. This survey data will help answer questions on customer use and access.

What are the conditions and trends in developed sites? Do developed site conditions meet or exceed acceptable standards? (A2)

For 2001, recreation personnel successfully entered meaningful measures (MM) information and began to migrate it into Forest Services coporate database - INFRA.

On the Grand River Ranger District, work continues on the development of the Blacktail trailhead and trail (formerly called Little Eygpt). Trail construction is expected to begin in

2003. It is expected that road reconstruction, a picnic area, and toilets will be added sometime beyond FY04.

On the Sheyenne, work continues on the development of a campground facility at Hankinson Hills. In addition, we completed the NEPA documentation and then relocated, surfaced with gravel, and installed self-closing gates on the west 15 miles of the North Country Trail (NCT). Relocating this segment of the trail out of water covered areas allows for the actual use of the trail where none could occur. Uncompleted tasks consist of installation of route markers; board walks over wet areas, signing, and decommissioning of the old trail. Future plans also include construction of a bridge over Iron Springs Creek, along with additional relocation and surfacing work on other segments of the NCT.

The LMNG witnessed several improvements to recreation facilities in 2001. Upgrades at Buffalo Gap Campground (BGC) consisted of resurfaced roads, new accessible restrooms with a shower, shade trees, and resurfaced and enlarged campsites. Installation of a communal picnic shelter, some handicapped accessible picnic tables, signing and fire rings will take place in 2002. A new equestrian campground loop is planned at BGC for 2005. Further north at CCC Campground, contractors installed fire rings, picnic tables and a parking lot. A new campground host site with electricity has also been roughed out.

In response to increased demand on the Maah-Daah-Hey Trail, the Forest Service built overnight camping facilities at sites near Wannagon, Bennett, Elkhorn and Magpie. These fenced compounds include gravel-surfaced access roads from county or high standard Forest Service roads, toilets, camp spurs and self-closing gates. Wannagon, Bennett and Magpie have potable water wells in place. Still to be installed are kiosks, signs, fire rings, and picnic tables. Hand crews also surfaced 2.5 miles of the Maah-Daah-Hey Trail. In addition, contractors excavated trails connecting the overnights with the Maah-Daah-Hey Trail.

Some items to complete in 2002 include mowing, surfacing, signing, and locating posts on these trails. A new updated Maah-Daah-Hey Trail map showing the recent improvements should be available this coming spring. Also projected for 2002 is preliminary survey and location work for the new Maah-Daah-Hey II Trail, "The Deuce", and other trails around the Dakota Prairie Grasslands.

Trails on the Dakota Prairie meet or exceed regional standards. Standards for horizontal and vertical alignment include keeping the grade to a minimum and out-sloping the trail tread. This allows the water to sheet off decreasing the number of high maintenance water bars. Enlarging the turning radius of switchbacks creates greater sight distances, decreasing user conflicts and enhancing user safety. Trail crews surfaced clay and sandy areas with crushed rock aggregate, extending the trail tread maintenance intervals and providing a safer trail when wet. Reassurance markers are at every trail junction, enhancing user feelings of security. Self-closing gates decrease user conflicts by insuring the gates are not left open.

Does off-highway vehicle (OHV) use and damage conflict with Forest Management area goals? (A3)

In January 2001, the former Regional Forester Dale Bosworth (now Chief of the Forest Service), signed a ROD titled, Off-Highway Vehicle: Record of Decision and Plan

amendment for Montana, North Dakota and Portions of South Dakota. Forest Service personnel began to implement the new Region 1 OHV policy by posting signs, distributing information and implementing area closures. Initially, corporate knowledge was used for baseline information. No monitoring took place in 2001; however, the DPG Law Enforcement Officer and other district personnel made visitor contacts throughout the summer and hunting season in the fall to educate grasslands users on the new policy.

The DPG Grasslands Plan Revision incorporates the R1 OHV policy and also designates management areas such as 1.2a – Suitable for Wilderness, 1.31- Non-motorized Backcountry Recreation, and 2.2 – Research Natural Areas, which will be managed to provide non-motorized semi-primitive recreation opportunities.

Is cultural resource inventory and protection compliance being accomplished annually? (A4)

Federal and contract archaeologists inventoried a total of 4,623 acres, investigated 53 undertakings and recorded 35 new sites on the DPG. Use of the Programmatic Agreement and Site Identification Strategy standards again let heritage resource specialists make more efficient use of their time. We were able to update databases and records, and complete input of project data files. In addition, Forest Service heritage personnel were able to revisit, monitor and assess 20 archeological sites of high cultural significance on the Dakota Prairie Grasslands. Additional sites will be revisited next year.

The DPG continues to follow the Programmatic Agreements (PAs) concluded with the South Dakota and North Dakota State Historic Preservation Offices. Some of the standards include identified specific site inventory strategies to follow for ground disturbing activities including Oil and Gas inventory, linear surveys, seismic surveys and range permit re-issuance. As required by the PAs, annual meetings with the SHPOs were held to review the reports and compliance actions. For 2001, all actions were in compliance.

Inventory strategies and consultant work on the Grasslands are conducted under special use permits and this work is field checked by Grasslands archaeologists to ensure accuracy and maintain quality control. Over the past three years an average of five antiquity permits have been issued to consultants, all of which have been checked and found to be reporting accurately.

We also began to implement the recommendations found in the report, *Cows, Tanks, Pipelines and Fences: The Effects of Grazing to Cultural Resources on the Little Missouri National Grasslands* (Floodman 2000). The DPG hired an archaeologist that revisited and reviewed some of the sites identified on the Medora District as having experienced severe effects from cattle impacts. He revisited 47 sites and updated the condition of the affected sites. His report, *Dakota Prairie Grasslands Heritage Resource Program: 2001 Site Monitoring in the Medora Ranger District* (Olson 2002), documents the site conditions, and makes recommendations to mitigate adverse effects. No actions will be accomplished in correcting the effects from cattle damage until 2002.

Contractors conducted four standard 3-D seismic projects in FY 2001. Project redesign avoided all potential impacts to archaeological sites. Forest Service personnel and contractors submitted these reports to the NDSHPO. Oil companies did not conduct any 2-D seismic projects on the DPG in 2001. Seismic projects remain the prevailing type of

heritage inventory surveys on the Little Missouri National Grasslands, accounting for 3,168 acres, or 69% of the total inventory acres. Surveys recorded 23 sites or 68% of the recorded sites.

Oil and gas development projects generated 25 new inventory reports, making them numerically the greatest caseload. The majority of these wells are located south of Fryburg and in the Davis Creek area. The Heritage Team determined that recently proposed oil developments in the Davis Creek area endanger the historic integrity of the Custer Trail/Campsites and Sully/Sioux Battlefields. Cumulative effects of continued mineral development threaten these National Register of Historic Places eligible sites. Exploration permits for the Davis Creek area were temporarily put on hold. This issue was recently resolved through a management and site treatment plan that was agreed to by all affected parties.

What are the effects of management activities and allocations on the visual resource? (A5)

We have worked successfully with Theodore Roosevelt National Park to mitigate adverse effects to visual resources around the park from oil and gas development. In addition, discussions have begun concerning photo point locations in the Davis Creek area.

The Revised Plan for the DPG identifies scenic integrity objectives and provides standards and guidelines for meeting them. Future monitoring will determine if implemented projects are meeting the Scenic Integrity Objectives.

B. WILDERNESS

(Not applicable to National Grasslands.)

C. WILDLIFE

Big Game

The Dakota Prairie Grasslands did not complete any big game projects in 2001, though some projects are planned for upcoming years. Throughout 2001 however, we continued to manage for bighorn sheep by limiting disturbance caused by recreationists and oil and gas development. We accomplished this using the mitigation measures outlined in the Custer Forest Plan and the Northern and Southern Oil and Gas EIS's.

An important development that did occur this year was the North Dakota Game and Fish Departments translocating bighorn sheep to a National Grassland area south of Interstate 94. These efforts are attempting to reinforce the remnant bighorn sheep herd located there.

Sharp-tailed Grouse

As noted in earlier monitoring reports, concern has been expressed over the availability of sharp-tailed grouse nesting habitat on the Dakota Prairie Grasslands. While the Custer Plan does not identify desired condition for grouse habitat, the most important component of such habitat is the presence of residual grass cover. Annual monitoring of this habitat component on the Little Missouri National Grassland began in 1996. Recent results are shown in Table 1. Generally, a minimum VOR of 3.5 inches is desired for successful grouse nesting. No grassland structure monitoring has been completed on the Grand River National Grassland

since the last monitoring report, but data is now available for the Cedar River National Grassland (Table 2).

Table 1: Grassland structure monitoring results - Little Missouri National Grassland.

Values indicate percent of transects with average Visual Obstruction Readings (VOR) in each category. Categories are in inches.

YEAR	# OF TRANSECTS	LESS THAN 2"	2.0-2.9"	3.0-3.9"	GREATER THAN 4"
1999**	355	56%	26%	12%	6%
2000**	94	60%	31%	6%	3%
2001	94	54%	33%	9%	4%

**From Table 1, 1999/2000 Annual Monitoring Report.

Table 2: Grassland structure monitoring results from the Cedar River National Grassland.

Values indicate percent of transects with average Visual Obstruction Readings (VOR) in each category. Categories are in inches.

YEAR	# OF TRANSECTS	LESS THAN 2.0"	2.0-2.9"	3.0-3.9"	GREATER THAN 4"
2001	34	56%	32%	12%	0%

In 2001, the Dakota Prairie Grasslands again monitored sharp-tailed grouse populations on the Sheyenne National Grassland. In 2000, censuses found 317 male sharp-tailed grouse, while counts in 2001 found 403 males. Increases in sharp-tailed grouse are of concern in this area, due to their competition with Greater Prairie Chickens.

The Forest Service did not monitor sharp-tailed grouse populations on the Little Missouri, Cedar River, or Grand River National Grasslands in 2001. Monitoring by cooperating state agencies indicates that sharp-tailed grouse populations in the general area of these grasslands declined during this period. In order to more effectively monitor these grouse populations in the future, the Dakota Prairie National Grasslands recently entered into a cooperative agreement with North Dakota State University for the University to design a monitoring plan for the grasslands' prairie grouse and their habitats.

Greater Prairie Chicken

Like sharp-tailed grouse, greater prairie chickens are greatly affected by the availability of residual grass cover. The Sheyenne National Grassland has conducted grassland structure monitoring since 1992. Data for 1999-2001 is summarized in Table 3. It should be noted that although more than 10,000 acres have been sampled each year, the categorical data are specific to those vegetative communties that are capable of producing high cover (i.e. the percentages do not pertain to all herbaceous communities that were sampled). The reason for this approach is that it was the availability of high cover that has been the parameter of interest. Because this method is more subjective however, we have entered into a cooperative agreement with North Dakota State University to design a more robust monitoring system for future years.

Table 3: Grassland structure monitoring results - Sheyenne National Grassland.

Values indicate percent of transects with average Visual Obstruction Readings (VOR), in each category. Categories are in inches.

YEAR	ACRES SAMPLED	LESS THAN 2"	2.0-3.0"	4.0-5.0"	6.0-7.9"	GREATER THAN 8"
1999*	14,727	29.4%	39.4%	15.4%	10.0%	5.8%
2000*	11,251	13.6%	17.0%	44.3%	21.0%	4.0%
2001	22,221	5.0%	18.0%	36.0%	34.0%	8.0%

*From Table 2, 1999/2000 Annual Monitoring Report.

In 1999, 106 male greater prairie chickens were counted during systematic surveys, while 137 were found in 2000. Counts in 2001 found 140 males, as well as two hybrid sharp-tailed grouse/greater prairie chicken males. Data indicates that the long-term trend for the chickens is downward, most likely due to a lack of sufficient residual cover. As noted above, competition from sharp-tailed grouse is also of concern.

Greater Sage-Grouse

Greater sage grouse occur in southwestern North Dakota, and are found on the southwestern portion of the Little Missouri National Grassland (LMNG). Little is known of this population's ecology. In 2000, the Dakota Prairie Grasslands initiated a cooperative study of North Dakota's greater sage-grouse. This effort, led by South Dakota State University, and coordinated by the North Dakota Game and Fish Department, will take several years to complete. Population monitoring by the North Dakota Game and Fish Department found 195 male sage-grouse in 1999, 283 males in 2000, and 232 males in 2001.

Waterfowl

The Dakota Prairie Grasslands did not complete or initiate any cooperative wetland development projects in 2001.

Fisheries

In 2001, fisheries work on the Dakota Prairie Grasslands focused on inventory of prairie stream fish communities. Fish surveys were contracted for the Cedar River and Grand River National Grasslands. Five species and 540 individuals were found on the Cedar River National Grassland, while approximately 9,400 individuals of 24 species were discovered on the Grand River National Grassland. Full results for the Cedar River National Grassland survey are posted on the Dakota Prairie Grasslands' website. The Grand River National Grassland report is currently being finalized, and will be posted when available. The University of Idaho completed their first year of surveying on the Little Missouri National Grassland. Identification of collected fish is ongoing. See the Dakota Prairie Grasslands' website for a progress report. Fish surveys on the Sheyenne National Grassland were completed in 2000; 873 individuals of 15 species were found. The full report of this survey is also available on the Dakota Prairie Grasslands' website.

Threatened, Endangered, and Sensitive Species (TES)

A priority for the Dakota Prairie Grasslands is to update inventory and monitoring information for threatened, endangered, and sensitive species. In 2001, surveys on the Grand River National Grassland focused on burrowing owls, Sprague's pipits and Baird's sparrows. Priorities for the Sheyenne National Grassland included northern leopard frogs and a wide variety of sensitive plants along the Sheyenne River. Burrowing owls, Sprague's pipits, Baird's sparrows, and Dakota buckwheat surveys were done on the Little Missouri National Grassland. In addition, surveys for sensitive butterfly species were conducted at Denbigh Experimental Forest, Cedar River National Grassland, and Sheyenne National Grassland. Project reports from these efforts are posted on the Dakota Prairie Grasslands' website, as they become available.

Western Prairie Fringed Orchid

The Sheyenne National Grassland (SNG) population of the western prairie fringed orchid is one of three remaining meta-populations for this species. The SNG is an active participant in recovery efforts and monitoring for this federally threatened species. Management questions regarding the species are currently being addressed by two projects; one focusing on the impacts of grazing on the orchid, and one focusing on management impacts and biology of the orchid's pollinators.

Monitoring of orchids in 2001 included three components: 1) censusing in Milton Jr. allotment and Viking Prairie, 2) metapopulation monitoring, and 3) demographic monitoring. In addition to these Forest Service efforts, the ND Natural Heritage Program conducted orchid surveys on several allotments in 2001. Results from their surveys are available in the report "An inventory of the western prairie fringed orchid (*Platanthera praeclara*) in the Sheyenne National Grassland, Ransom County, North Dakota in July 2001".

Metapopulation monitoring of flowering orchids was continued in monitoring plots in six different allotments in 2001. This monitoring is being conducted in order to establish population trends across the SNG.

Table 4: Orchid metapopulation monitoring results 2000 and 2001

Allotment Name	# of flowering orchids 2000	# of flowering orchids 2001
Penberthy	91	120
N Durler	34	10
McLeod	69	37
Sagvold	29	35
North S	26	20
Milton Jr.	26	3
Totals:	**275**	**225**

Demographic monitoring of orchids was done in cooperation with The Nature Conservancy in 2001. This monitoring was conducted in order to track affects of management activities on orchids throughout their lifecycle. Results are found in the following table. For a complete report see "Western Prairie Fringed Orchid Monitoring Study Project Report for 2001".

Table 5: Orchid demographic monitoring results.

	Average # of flowers/plant	Fertile pods/plant	# of plants that set seed	# of plants damaged by insects	# of plants damaged by cattle
Grazed (Sagvold & Venlo)	8.84	.44	8	16	10
Burned & Grazed (McLeod)	10	4.38	41	2	0
Ungrazed (Viking and Brown Ranch)	9.5	1.04	13	1	-

Sensitive Plants

In 2001, inventories were conducted for the sensitive plants found in woodland and wetland habitats on the SNG. All located populations were mapped using GPS. In conjunction with these inventories, monitoring plots were established to collect baseline data. Sixty monitoring plots were established within populations of sixteen different species. For more information on this monitoring project see "Rare plant survey in the Sheyenne Delta area, Richland and Ransom Counties, North Dakota".

On the LMNG and GRNG, a survey was conducted for Dakota buckwheat. All located populations were mapped using GPS technology and information collected during this survey will be used as baseline data. For more information see the report "2001 Sensitive Plant Inventory: Dakota Buckwheat (*Eriogonum visheri*)".

Black-tailed Prairie Dog

Black-tailed prairie dogs provide important habitat for several other species, including TES species such as the burrowing owl. No systematic surveys for black-tailed prairie dogs were completed in 2001, but have been contracted for 2002.

Wooded Draws

Woodland surveys were completed in 1998 on 11,000 acres of the Little Missouri National Grassland. Seven habitats were investigated: Rocky Mountain Juniper, Ponderosa Pine, Limber Pine, Cottonwood, Quaking Aspen, Bur Oak, and Green Ash. Of these habitats, the condition of the green ash woody draws were of greatest concern. In general, these habitats were considered to be in poor condition, with approximately 77% of them in an early seral stage. Approximately 30% of the green ash woody draws investigated contained no green ash seedling or saplings. The presence of non-native species, such as leafy spurge and Kentucky bluegrass, was also of great concern.

Research Natural Areas

The Dakota Prairie Grasslands currently has three established RNAs: Limber Pine, Two Top-Big Top, and Sheyenne Springs. Basic Stewardship Monitoring (Natural Areas Source Book, USDA Forest Service, Region One, 1996) was conducted at Limber Pine and Two Top-Big Top RNAs in 2001. Sensitive plant surveys were conducted at Sheyenne Springs RNA.

Monitoring results from Limber Pine RNA indicate that overall the site remains in fair condition. New signs are needed for the RNA. Low regeneration of limber pine has been noted and porcupine damage to limber pine is causing some mortality. Monitoring results from Two Top-Big Top RNA indicate that the site is in satisfactory condition. However, Japanese brome is a problem. Litter accumulation is high on both sites. A prescribed burn has been suggested. Results from plant surveys at Sheyenne Springs RNA are available in FS files.

Grassland Community Biodiversity

Encroachment by exotic species, displacement of natural processes such as fire and herbivory, and current management practices potentially affect the floristic composition and structure of grassland communities.

Botanical composition of native prairie habitats is a significant issue. In 1998, the Grasslands initiated data collection to assess the integrity of herbaceous plant communities in relationship to distance from livestock water developments on the LMNG ("Bullseye study"). Several plant composition attributes were considered in this study and response varied between attributes. However, all were impacted by distance to water. For example, analysis of species diversity (total number of species) found that the number of species was highest in the ½ to ¾ mile zone from water.

In addition to the Bullseye study, floristic similarity to reference conditions was assessed for grassland communities. A complete assessment will be available in the final "Little Missouri National Grassland Rangeland Assessment". Data from this assessment may be used as a baseline for future monitoring.

Has effective wildlife habitat decreased by more than ten percent over levels estimated in the Forest Plan FORPLAN analysis as a result of road construction and oil and gas activities? (C1)

No new information is available since the 1999/2000 monitoring report.

Have essential habitats or populations for Threatened and Endangered species of bald eagle, black footed ferret or peregrine decreased by more than five percent? (C2)

No, essential habitats or populations of these species have not decreased by more than 5%. In fact, we know of no declines at all. Peregrine falcon are no longer listed under the Endangered Species Act. No bald eagles nest on or near the Dakota Prairie Grasslands. Based on current information, no prairie dog complexes on the DPG are currently large enough to support Black-footed ferrets. In 2002, the Dakota Prairie will be remapping all prairie dog colonies.

Western prairie fringed orchid population numbers found on the Sheyenne National Grassland have generally increased since 1992. These increases in orchid numbers correlate with high precipation and wetland levels. However, not all sites or allotments have experienced population increases and some allotments have experienced declines.

The expansion of leafy spurge poses one of the greatest threats to orchid habitats. The extent of leafy spurge infestions affecting orchid habitats on the SNG is currently unknown. Livestock grazing also impacts orchid populations by reducing the number of orchids that complete their life cycle and set seed. The full extent of this impact is unknown.

Have winter range capacity and population levels decreased by more than five percent for elk, bighorn sheep, or mule deer in the three year population average for these species? (C3)

We have no new information regarding this question since the 1999/2000 report.

Has there been greater than a five percent reduction of key wildlife habitats with special emphasis on riparian and woody draw areas? (C4)

We have no information to assess whether riparian or woody draw areas changed in 2001. However, we did complete "Proper Functioning Condition" surveys on the Little Missouri National Grassland in 1998 and 1999. Surveys were run on 405 miles of stream. Although 56% of the surveyed areas were classified as being in "proper functioning condition" or "functioning at risk – upward trend", 27% were classified as "functioning at risk – trend unknown", while 11% were classified as "functioning at risk - downward trend", and 6% as "nonfunctional". These latter three catagories are of concern.

Have wildlife and livestock conflicts in key wildlife habitat areas caused more than a five percent decrease in effective wildlife habitat? (C5)

The Dakota Prairie Grasslands does not have any baseline information to make this determination. Two key ares where wildlife and livestock conflict are in prairie dog complex expansion and residual grass cover.

The Dakota Prairie Grasslands did not approve or fund any prairie dog control efforts in 2001. Therefore, it is very unlikely that this key habitat was reduced overall during this timeframe. Remapping of all known prairie dog colonies is currently being completed. On the Dakota Prairie Grasslands residual cover availability for ground nesting birds (e.g. greater prairie chicken, sharp-tailed grouse and Baird's sparrow) is low. Livestock grazing patterns, along with weather and site conditions, have great influence on residual cover. Residual cover information (VOR) is presented in Tables 1, 1a, and 2.

Have at least 90 percent of planned fish and wildlife habitat targets been met? (C6 and C10)

Fish, wildlife, and TES habitat improvement and inventory project accomplishment levels exceeded 90 percent of annual targets in 2001. Habitat improvement projects included prescribed burning to invigorate tallgrass prairie, control of leafy spurge in the Humphrey Draw Wildlife Area and on the newly acquired Viking Prairie, transplanting of aquatic plants to stockponds lacking such vegetation, and inventory and monitoring of vegetative cover and wildlife and fish populations.

Has there been an increase or decrease in acreage of prairie dogs by more than ten percent? (C7)

No new grassland-wide information is available since the last monitoring report. As noted above, the Dakota Prairie Grasslands will be remapping all prairie dog colonies in 2002.

Have the population trends for mule deer, whitetail deer, mountain goats, and antelope decreased by more than ten percent from the previous five year average? (C8)

No new information is available since the 1999/2000 monitoring report. The Dakota Prairie Grasslands does not collect such information, but relies on the expertise of state wildlife agencies in this matter. As noted in last year's monitoring report, mountain goats do not occur on the Dakota Prairie Grasslands.

Have harvest levels of bobcat and coyote decreased their populations by more than ten percent from the previous five year average? (C8)

The status of these species is largely unknown for Grassland units. It is suspected that their populations are relatively stable, though outbreaks of mange have undoubtably reduced coyote population levels in recent years. It is unlikely that harvest levels on the Dakota Prairie Grasslands had a significant impact in 2001.

Has the occupied/unoccupied habitat for golden eagle and prairie falcon decreased by more than ten percent? (C8)

In 2001, the Dakota Prairie Grasslands initiated an inventory of nesting raptors on the Grand River National Grassland. The western 2/3rds of the district was covered. Five active golden eagle nests were found (this area does not contain suitable nesting habitat for prairie falcon). The eastern 1/3 of the district will be surveyed in 2002. See the Dakota Prairie Grasslands' website for additional details.

A comprehensive golden eagle survey was last conducted on the Little Missouri National Grassland in 1993. In 2001, 226 golden eagle nests were visited to determine their status. Overall, 60 nests were classified as being in good conditoin, and 37 nests were in fair conditon. Thirteen of the previously located nests were partially destroyed, while 116 were wholly destroyed. In 2002, the Dakota Prairie Grasslands will revisit 34 known ferruginous hawk and 84 known prairie falcon nests to determine their status. Future plans call for maintaining the raptor database once it is updated. See the Dakota Prairie Grasslands' website for additional details on these projects.

Does at least 90 percent of the prairie grouse dancing/booming grounds have an average stubble height of 12 inches or more within a one mile radius? (C9)

As explained in earlier monitoring reports, the Dakota Prairie Grasslands likely does not meet this standard. The DPG has focused on monitoring Visual Obstruction Reading (a.k.a. Visual Obstruction Measurement), rather than stubble height. A direct comparison between the two elements is not possible; therefore we cannot provide a definitive answer to this monitoring element. Please see Table 1, 2, and 3 for recent Visual Obstruction Readings. Based on this data, it is very unlikely that we would currently retain 12 inch stubble height within a one mile radius of this many dancing/booming grounds.

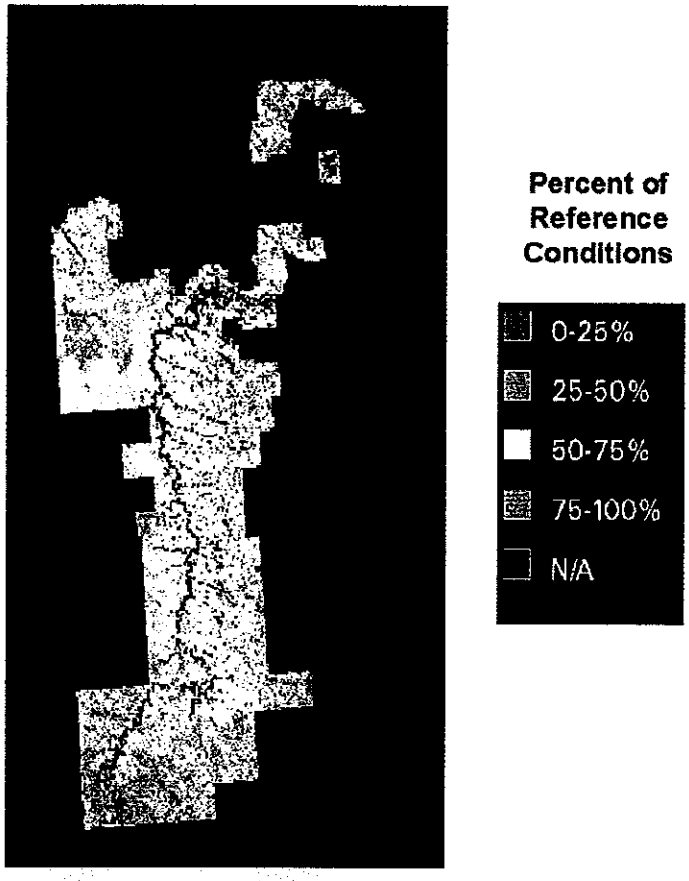
D. RANGE

In FY01, the Dakota Prairie Grasslands placed emphasis on completing the assessment of the Little Missouri National Grassland. The primary emphasis of this assessment was to provide a baseline for updating allotment management plans. That assessment is scheduled for completion in early summer 2002. The same type of assessment is planned for the Sheyenne National Grassland with data collection and analysis ongoing. Monitoring completed in 2001 included assessment of invasive species control and compliance with operating instructions on individual allotments.

Uplands

The Little Missouri National Grassland assessment included an evaluation of how existing conditions compare to reference sites for existing vegetation habitat types. Comparison provides a basis for developing a rating of floristic similarity to reference conditions. The data is summarized by lifeform as grass, shrub, or tree. Plot data for what were considered to be relatively undisturbed sites were used to characterize reference conditions. The existing condition and reference conditions were mapped and compared to determine how similar existing conditions are to reference condition to assess similarity. The grass lifeform dominates the Little Missouri National Grassland. Figure 1 pictorially shows the results of the grass lifeform similarity to reference analysis.

Figure 1. Grass Lifeform Similarity to Reference Conditions



The percentages in Table 6 characterize the grass lifeform floristic similarity to reference conditions:

Table 6. Similarity (% lifeform) to Reference Conditions

	Total	Badlands	Rolling Prairie
0-25% (Very Low)	0.6%	0.3%	0.3%
25-50% (Low)	46.2%	26.4%	19.8%
50-75% (Moderate)	40.5%	20.3%	20.2%
75-100% (High)	7.0%	2.3%	4.7%
N/A	5.7%	4.5%	1.2%

Hardwood draws

As part of the Assessment on the Little Missouri National Grasslands, 11,000 acres of hardwood draws were surveyed and a summary of survey results was completed in 2001. The results indicate that green ash draws are generally in poor condition because of early seral conditions (77%), many lack seedling and sapling regeneration (30%), and many are park like stands with single species in the understory. The same process to determine similarity to reference conditions was accomplished for the tree lifeform. Figure 2 pictorially shows the results of the tree lifeform similarity to reference analysis.

Floristic similarity was assessed for several layers within the broadleaf tree lifeform. Table 7 displays the percentages at the 15+-foot layer:

Figure 2: Tree Lifeforms Similarity to Reference Conditions

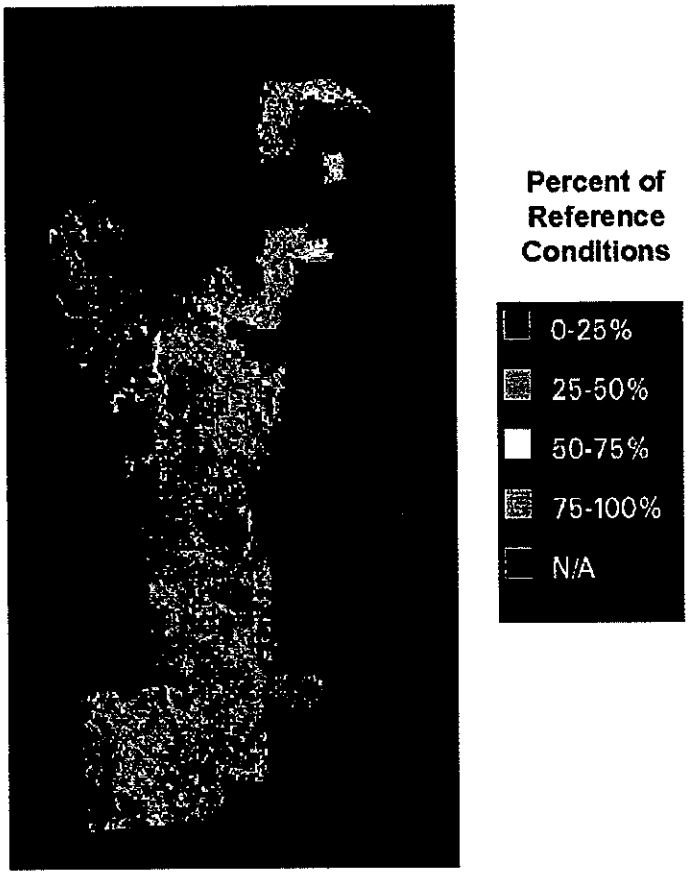


Table 7. Similarity (% lifeform) to Reference Conditions

	Total	Badlands	Rolling Prairie
0-25% (Very Low)	1.2%	0.8%	0.4%
25-50% (Low)	8.2%	6.2%	1.9%
50-75% (Moderate)	19.9%	13.9%	6.0%
75-100% (High)	0.5%	0.2%	0.3%
N/A	70.2%	32.7%	37.5%

Shrublands

The same process to determine similarity to reference conditions was accomplished for the shrubland lifeform. Figure 3 pictorially shows the results of the shrub lifeform similarity to reference analysis.

The percentages in Table 8 characterize the shrub lifeform floristic similarity to refererence conditions.

Figure 3: Shrub Lifeform Similarity to Reference Conditions

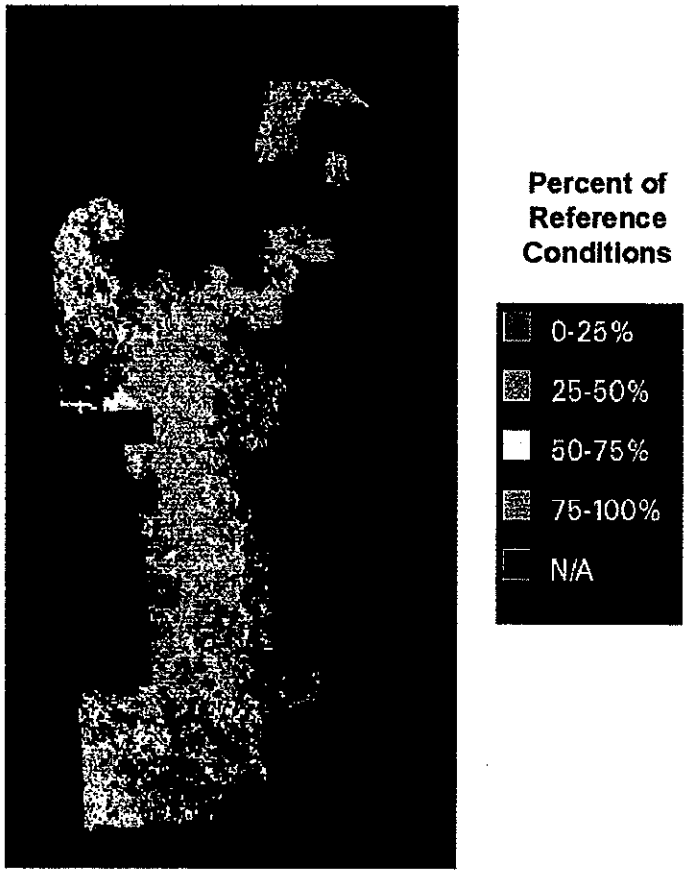


Table 8. Similarity (% lifeform) to Reference Conditions

	Total	Badlands	Rolling Prairie
0-25% (Very Low)	0.0%	0.0%	0.0%
25-50% (Low)	7.4%	2.7%	4.7%
50-75% (Moderate)	49.0%	34.5%	14.5%
75-100% (High)	0.1%	0.0%	0.1%
N/A	43.6%	16.6%	27.0%

Tables 6, 7, and 8 reflect the percentages of mapping units occupied by plant lifeforms of grass, trees, and shrubs. Each of these tables contains a category labeled N/A (Not Applicable). This category represents plant lifeform mapping units that contains less than 15% of the respective lifeform.

Riparian

In 1996, the Forest Service adopted (USDA, Thomas, Jack Ward. 1996) the Proper Functioning Condition (PFC) assessment methodology (USDI Bureau of Land Management, and USDA Forest Service and Natural Resource Conservation Service Technical Reference TR-1737-15, 1998) as the minimum inventory for riparian assessments.

PFC assessment data on 405 miles of streams on the Little Missouri National Grassland was summarized in 2001. The summary indicated that 56% of the stream miles assessed were in a properly functioning condition or in a functioning at risk condition with an upward trend. The remaining 44% were functioning at risk with no apparent or downward trend or non-functioning.

Noxious Weeds

The effort to control noxious weeds continues to emphasize a biologically based integrated pest management approach. Populations of flea beetles (Apthona lacertosa and A. nigriscutis) are becoming well established in several areas especially on the Medora Ranger District. During the 2001 season, District crews and Grazing Association members released apthona flea beetles on 2210 sites. Additionally, Apthona beetles were collected for re-distribution on other Forest Service units in the Region. Biological control efforts in the Buffalo Campground area have successfully reduced spurge infestations to acceptable levels. It was estimated that control in the campground exceeded 95% in 2001.

The Sheyenne Ranger District continues to include goat grazing as an integral part of their leafy spurge control program. In 2001 goat grazing was applied to 6000 acres of spurge infestations. Apthona beetles still have not established well in the sandy soils of the Sheyenne Ranger District and although insects are being released yearly, they have not established themselves as they have where they have been released on the Medora Ranger District.

Herbicide use continues to be an important aspect of noxious weed control efforts. Plateau is a narrow spectrum pesticide that has been shown to be effective in controlling leafy spurge with limited effect on non-target herbaceous species. It was used to control leafy spurge on the Sheyenne, Grand River and Medora units. The effectiveness of Plateau in reducing stem densities of leafy spurge was monitored on the Sheyenne National Grassland. Control was between 85% and 93% the spring (2001) following a fall treatment. Table 9 provides an overview of herbicide use during the 2000 and 2001 seasons:

Table 9: Herbicide Treatment Levels on the Dakota Prairie National Grasslands (2000 & 2001)

UNIT	TARGET SPECIES	2000 TREATMENT LEVEL (acres)	2001 TREATMENT LEVEL (acres)
Sheyenne NG	Leafy Spurge	4,443	4,063
Grand River/CedarRiver NG's	Leafy Spurge	550	550
Little Missouri NG McKenzie Unit	Leafy Spurge Absinth Wormwood Canada Thistle	273 8 11	515
Little Missouri NG Medora Unit	Leafy Spurge Canada Thistle	455 6	545 5

Note: Monitoring Item D5 does not apply to the Grasslands.

Does range condition and trend analysis show less than a five percent increase in rangelands in a downward trend over the previous analysis? (D2)

Range condition and trend analysis has not been accomplished in the past three years. The primary effort has been in developing the assessment for the Little Missouri National Grassland (known as the "Dragon"). This assessment will provide baseline information for identifying priorities for condition and trend studies during updates of Allotment Management Plans.

Have noxious weed infestations increased more than 10 percent over the last five years? (D6)

Infestations on the Dakota Prairie National Grassland are still estimated to be at the 1998 reported total of 21,550 acres when it was noted that weed infestation had increased by more than 10 percent over the previous five years. We do not have estimates of any increase in infestations at this point in time. See Table 9 above for actual treatment levels.

In 2002, emphasis will be placed on obtaining better inventories of noxious weed acres. Spectral imagery, on-the-ground delineations using geographic positioning systems (GPS), and inventory mapping using geographic information systems (GIS) analysis will be utilized. This is an ongoing effort and we anticipate that existing inventories will be updated by the end of 2003.

Is availability and use of forage for livestock grazing at least 90 percent of anticipated Forest Plan levels? (D1)

The 2000 and 2001 authorized use levels, when compared to Forest Plan permit levels, were influenced by environmental conditions and consultation with each Grazing Association. Adjustments in authorized levels included changes in total livestock numbers, season of use, and complete rest where needed to allow movement toward desired conditions. Table 10 displays authorized use levels for 2000 and 2001. Both

authorizations are compared to the 1980-1999 20-year average authorization.

Table 10. Authorized Grazing Level Compared with the 20-Year Average (1980-1999)

Grasslands District	20-Year Average (% Of 1987 Permit Level)	2000 Authorization (% Of 20-Year Average)	2001 Authorization (% Of 20-Year Average)
Sheyenne NG	90%	95%	95%
Grand/Cedar River NG's	96%	106%	106%
Little Missouri NG	84%	96%	105%

Have at least 95% of Allotment Management Plans targeted for updates been accomplished? (D3):

There has been no change in the status of NEPA analysis for the Rescission Bill schedule. The Little Missouri National Grassland assessment will facilitate the NEPA analysis process for allotments on the Little Missouri National Grassland. NEPA analysis on a group of allotments on the McKenzie Ranger District will begin in the spring of 2002.

NEPA analysis for allotments on the Cedar River National Grassland was initiated in late 2000 and were planned to be completed in the early summer of 2002. The interim decision on the Revised Plan will delay the completion of these AMP's.

Are at least 20 percent of allotments inspected annually for grazing permit compliance? (D4):

Yes, at least 20 percent of allotments are inspected annually for grazing permit compliance (see Table 11). In addition to finishing monitoring of structural improvements, field inspections of allotments for compliance with the grazing permit increased in 2001. This compliance monitoring was geared toward asking the question of whether implementing guidelines identified in the Annual Operating Instructions (AOI's) were followed. Compliance monitoring deals primarily with instructions having to do with systems such as livestock numbers and season of use including annual changes due to environmental conditions. Although compliance monitoring did not indicate concerns on most allotments, that does not mean that all of those allotments were in full compliance with the Custer Forest Plan. For instance, resource issues dealing with structural objectives may not have been monitored in every allotment or around every grouse lek.

When an allotment was reported as being inspected, any compliance concern issues that were observed have been documented for the files. In some cases, livestock were removed from the allotments earlier than the "off" dates because of concern with excess forage use. All issues of concern were addressed after consultation with the responsible Grazing Association.

Table 11. 2001 Field Inspections

	Sheyenne	Grand River & Cedar River	Medora	McKenzie
Total Allotments	55	76	254	184
# Of Allotments Visited	25	19	63	46
% Of Allotments Visited	45%	25%	25%	25%
# Allotments with resource or range improvment concerns noted	1	0	8	3
# Allotments with concern due to not following plans or instructions	0	0	0	0
# Allotments with concern due to resource issues or early removal for resource concerns	0	0	8	2
# Allotments with concern due to not maintaining range improvements	0	0	0	1

E. TIMBER

(Not applicable to National Grasslands.)

F. SOIL, AIR, WATER

In accordance to the Custer Plan we have continued to monitor and evaluate changes in surface water quality and quanity in selected streams, changes in ground water levels in areas with Threatened and Endangered Species, and grazing effects on watershed conditions in riparian areas and woody draws. For the purpose of the DPG Plan Revison we have continued in our efforts to collect baseline data for on going projects. As a result we have updated the Memomorandum of Understanding (MOU) with Natural Resources Conservation Services (NRCS) to continue mapping those lands on the Dakota Prairie Grasslands that have not been updated or digitized. Those areas include 10 quads on the McKenzie Ranger District, the Sheyenne, Cedar and Grand River Grasslands. They are presently in different stages of the soil survey process. Those lands on the Medora District have been completed and the results can be found in the NRCS national data bases, Soil Survey Geographic Data Base (SSURGO) or National Soil Information System (NASIS).

The entire Dakota Prairie Grasslands Hydrologic Unit Boundaries (HUBs) have been delineated and digitized and they are in draft form until they have been certified by NRCS. The watershed layer is a Geographical Information System (GIS) core layer needed to perform GIS analysis. We are working under an MOU with North Dakota Department of Health, NRCS, North Dakota Geological Survey, United States Geological Survey (ND Water Resource Division), and the North Dakota Water Commission using the Federal Standards for the Delineation of Hydrologic Boundaries (dated June, 2001).

On site observations are being inventoried in management areas and preliminary assessment indicate that soil and water quality may be adversely impacted. As we quantify the damage in those areas utilizing appropriate protocols we are implementing baseline monitoring prior to changing management practices.

Many of the management areas with detrimental soil sites and poor water quality appear to occur near trails, stream banks and crossings in proximity of roads with natural erosion occurring in the badlands, see Figure 4.

Figure 4. Ash Coulee, October 2000, livestock effects near a low water stream crossing after a grazing season.

We recognize that past cultivation practices over much of the grasslands have affected the soil and their properties and in managing the area this will be a consideration for mitigation designs.

Preliminary analysis of sampling on the Medora and McKenzie Districts in 1997 and 1998 indicated that soil conditions are negatively impacted in some areas where livestock tend to congregate (riparian and hardwood draws). Fifty-six percent of the areas sampled are in a properly functioning condition and the remainder are functioning at risk or non-functioning. A properly functioning riparian-wetland area has adequate vegetation, landform, and/or large woody debris present to dissipate stream energy associated with high waterflows. These components combine to reduce erosion and improve water quality; filter sediment, capture bedload and aid floodplain development; improve flood-water retention and ground-water recharge; and develop root masses that stabilize stream banks against cutting action. The above attributes aid in the development of diverse ponding and channel characteristics to provide the habitat, water depth, duration and temperature necessary for fish production, waterfowl breeding and other uses; and support greater biodiversity (see Figure 4). A functional at risk designation means that the riparian-wetland area is in a functional conditon, but an existing soil, water or vegetation attribute makes it suseceptible to degradation (USDI, BLM Technical Ref. 1737-9, 1993).

For FY01, several watershed sites were assessed and monitoring was implemented or planned. On the Sheyenne National Grassland all the streams were measured and digitized and that information is on CD-ROM, waiting to be added to the National Data Hydrography (NDH) core layer in GIS and the NRIS water module (*NRIS water module will be installed, 05/2002*). The measured streams will also include ground truthed data for our streams. Iron Springs is one of the measured streams that was preliminarily assessed as functioning at risk using PFC, see Figure 5 and Figure 6. It is being monitored for stream flow, bank full measurements, and chemical, biological and physical properties. The project is contracted

with USGS (North Dakota Water Division). It is a 2 year project with analysis being reported in November 2002.

Figure 5.

Figure 6.

These are pictures of the conditons on Iron Springs Creek on the Sheyenne National Grasslands. The stream has become unstable due to the increased water flowing into the stream and the lack of vegetation to dissipate the energy flowing through the hydrologic system. Notice the increased down cutting of the banks as well as the lack of flood plains. To design and implement changes in management for this riparian habitat we are monitoring water quanity and quality.

We have also installed a well monitoring system on the Sheyenne Grasslands to measure the impact of irrigation systems in proximity to meta populations of the Western Prairie Fringed Orchid and tall grass prairie habitats. We have scientifically designed the placement of the wells so that we can measure water levels for scientific significance. We are also measuring the effects of irrigation systems on the ground water levels during their usage. The irrigation systems have been placed in proximity to the Sheyenne Grasslands and in areas that may threaten the Western Prairie Fringed Orchid. We are also testing the water in wells for chemical, physical and biological parameters as a quality control measure to insure that our management practices to eradicate leafy spruge is not harming the environment.

The Grand River Ranger District, Cedar and Grand River Grasslands will have a complete Hydrologic Condition Assessement (HCA) in FY02.

The Medora Ranger District implemented a watershed improvement project. The district is restoring one segement of Ash Coulee Creek that has become functioning at risk due to the adverse affects of grazing and a low water crossing used by oil and gas companies. Figure 7 and 8 below, show the seasonal first year results (May 2001 and September 2001). We are also collecting chemical, biological and physical properties of the water as well as vegetative data on the floodplains and the buffer zones. All points were GPS'd for input into a GIS layer as well as NRIS Terra Module.

Figure 7. Ash Coulee, May 2001. Riparian area after 3 months of fencing and no grazing.

Figure 8. Ash Coulee, Septermber 2001 approximately 1 year after fencing.

Monitoring will be complete and the data analyzed for this project in FY03.

We have also completed the first year of monitoring on the Blacktail Complex Fire Burned Area Rehabilitation (2000). The monitoring was contracted to North Dakota State University Soil Science and Hydrology Department. The preliminary data shows that in areas that have a large stand of junipers, fires tend to burn extremely hot and cause hydrophic soils, thereby increasing erosion and sedimentation in the reaches of that particular watershed and damaging stream crossings (paper presented to the Manitoba Soil Science of Canada Conference, February, 2002).

On the McKenzie Ranger District we have implemented a National Fire Plan (NFP) project for the Rough Creek Complex Fire (October, 1999). We have scientifically designed the project areas to be monitored for grasshoppers (contracted to ARS for 3 years); sedimentation and erosions rates (contract with USGS pending); grazing best management practices, fire regimes, and vegetative classification (contracted to North Dakota State University, Range Department for 3 years); and wildlife inventory (contracted to Montana State University for 2 years). The completion of these projects are dependent upon NFP funding.

Grassland-wide we began plugging old abandoned water wells for safety, one of the Regional and National priorites. To date we have plugged 25 wells in FY99; 19 wells in FY00; and 25 wells in FY01. We have also begun inventory of our dams on the grasslands and have located several that are unsafe and/or no longer being used or maintained. We have contracted to have 4 of the dams removed and those areas restored to original contours in their respective watersheds.

Note: Monitoring Items F1, F2, F3, F4, and F7 do not apply to the Grasslands.

Have the effects of mineral development activities shown signs of excessive erosion, loss of vegetation, or surface damage on more than 25 percent of well sites or roads? (F5)

Both the McKenzie District and the Medora District conduct annual inspections on oil and

gas activity areas and inspections on reclamation activities. As evidence of detrimental impacts are identified, notice is sent to the responsible party requesting mitigation. To date, we have identified several sites that fall within the >15% detrimental soil quality limits as well as exhibiting loss of vegetation and excessive erosion. On the McKenzie Ranger District, a segment of Magpie Creek has been assessed and the District, in conjuction with the Supervisor's Office and Burllington Resources, is in the process of implementing a design to mitigate the sites. The priority for FY02 and FY03 is to complete NEPA for the mitigation on Magpie Creek.

In the same area, Rough Rider Creek has had several road failures but the oil and gas companies on the respective districts have been amenable to doing work necessary to mitigate adverse impacts.

Are soil conditions as a result of grazing better than fair with either an upward trend or a range condition of good or better? (F6)

Three areas on the DPG were monitored for soil conditions in FY01. It was identified that soil conditons on Ash Coulee on the Medora District, Sand Creek on the McKenzie District, and Iron Springs on the Sheyenne District are in fair or less than fair condition. The conditions in these areas are attributed to a combination of factors including grazing and trampling.

Is watershed rehabilitation backlog accomplishment at least 20 percent of planned levels if funding is available? (F8)

On the DPG there is a backlog of watershed rehabilitation work; however, backlog accomplishments are at least 20 percent of planned levels with available funding. In FY01 we implemented the Ash Coulee rehabilitation project which consisted of monitoring physical, biological and chemical parameters in the water and inventoring the vegetation on the stream banks using GPS to map the inventoried points, so that we will be able to go back over the years to measure seral stages after having fenced the area. We plugged 25 abandoned wells, and removed four dams with associated rehabilitation (recontouring and revegetating with native seeds) of the respective areas.

Does air quality management for hydrogen sulfide, sulfur dioxide, and smoke meet standards in the State Implementation Plan, the Smoke Management Plan, and Federal Air Quality Standards? (F9)

Oil and gas companies with mineral leases on both the Medora and McKenzie Districts are required to meet state and federal air quality standards for hydrogen sulfide as part of their lease permits. The State of North Dakota is responsible for monitoring air quality standards.

For prescribed burns, districts obtain and abide by the necessary State burning permits.

G. MINERALS

Educating the public, oil & gas/utility operators and contractors on oil & gas operations pertaining to Forest Service lands was a major project for fiscal year 2001. A one day session with oil industry participants was held to discuss regulations, procedures, permits and any relevant issues associated with oil & gas operations. A week long cooperative project with the North Dakota Petroleum Council, North Dakota Industrial Commission and the Forest

Service was held to teach North Dakota High School teachers the basics of petroleum geology, exploration, production, refining and marketing of petroleum products. Pre work was started this summer for the Rough Creek Continuing Education Program involving students from Williston and Watford City High Schools. The class will be taught by Forest Service personnel covering geology, oil & gas minerals, paleontology and other disciplines within the Forest Service. Class date is scheduled for July 2002. The DPG also hosted employees from the WO and Lolo NF for a two week orientation pertaining to oil & gas operations. In addition, we also completed and released the DPG Oil and Gas Showcase video.

Several paleontology sites were excavated in the summer of 2001 including a "Paleocene Epoch crocodile site" that was open to media coverage.

Note: Monitoring Items G7 & G8 do not apply to the DPG. Monitoring Element G6 relates to Coal Leasing. Currently there are no coal leases on the DPG.

Are at least 95 percent of geophysical permit applications processed within 15 working days or 20 working days if not covered by a programmatic EA? Are at least 95 percent of plans administered in compliance with critical conditions and terms of permits? (G1)

The "clock" for processing permits starts when all surveys and needed information is supplied. Once that happens, 75 percent of sampled permits were issued within these timeframes. Compliance with NEPA and other agency requirement surveys (such as botanical, wildlife, archaeological) make meeting these timeframes on 95% of submitted APD's improbable. All (100 percent) of critical conditions and terms of permits have been met.

Are at least 95 percent of lease applications, APD, and sundry notices reviewed within specified time frames? Were at least 95 percent of drilling permits in compliance with critical conditions and terms? Was there at least 80 percent of projected production estimates? (G2)

The DPG processed 90 lease parcels covering a total of 48,835 acres for FY01. For FY01, 40 percent of APD's were processed within specified time frames. This reduction in timely processing was caused by the majority of APD's within the Davis Creek area of Billings County being delayed pending completion of a historical analysis.

One hundred percent of APD's/SN's are in compliance with critical conditions or stipulations. Activities on these are not allowed to proceed unless in compliance.

The tracking of production rates is not within Forest Service purview.

Was there at least 95 percent compliance with critical conditions and terms of operating plans for mineral rights reserved or outstanding? (G3)

One hundred percent of operations on lands with mineral rights reserved or outstanding are in compliance with critical conditions and terms of operating plans.

Are saltwater spills being adequately prevented (no more than three unintentional spills, two intentional spills, or five spills from saltwater flowlines for any one operator)? (G4)

Assuming that the "reporting quantity" for salt water spills is considered to be one Barrel (42 gallons), the answer to all situations is none have occurred. The monitoring items detailed here dealt with concerns or problems that existed at the time the Forest Plan was

signed. Since then, management of operations has changed to the point where these generally no longer are issues. An efficient tracking system enables us to respond in short time frames to get salt water spills cleaned up rapidly with minimal environmental damage. The DPG requires more maintenance on what were problem pipelines that were particularly subject to spills in the past. Also in the past, salt water was intentionally applied (spilled) on pads for vegetative control. By utilizing other approved methods of vegetative control, intentional salt water "spills" are no longer allowed.

The type and quantity of spills are reported per regulatory or policy requirements. The Custer and DPG in November 1998 formalized a policy regarding reporting quantities of oil and salt water spills in a manual supplement. An additional factor to counting and categorizing is response to the spills.

Does reclamation from salt water or toxic drilling fluids provide for at least 90 percent of plant density of adjacent sites within three growing seasons? (G5)

The DPG tracks areas that have had spills until rehabilitation is considered complete. It is not unusual for this to take longer than three years depending on climate and soil variability. DPG experience has shown that rehabilitation normally takes at least four to six years.

H. HUMAN AND COMMUNITY DEVELOPMENT AND BUDGET

Dakota Prairie Grasslands works in partnership with the North Dakota Forest Service to provide assistance to communities through Economic Action and Rural Development programs. Economic Action programs h*elp rural communities and businesses that are dependent on natural resources to become sustainable and self-sufficient. The Rural Community Assistance (RCA) program is one program under Economic Action that* helps rural communities build skills, network, and develop strategies to address social, environmental, and economic changes.

In 2001, five rural communities were awarded grants through the RCA grant program, and one grant was awarded under Rural Development program authorities (see Table 12).

In addition to the grants provided to local communities, Dakota Prairie Grassland staff often work with communities to develop strategic action plans to identify opportunities, establish goals and objectives, and prioritize projects. We develop and promote conservation education activities through local schools, Girl Scouts, Boy Scouts, various youth and community programs.

In 2001, the Rough Creek Conservation Education project was initiated on the McKenzie Ranger District in partnership with local school districts to provide summer science students the opportunity to participate in field research activities of a burned area. Students will learn about range ecology and the impact of fire on the grasslands ecosystem. This project is about 50% complete.

We also initiated and implemented Prairie Days on the Sheyenne National Grasslands to educate the general public about the tall grass prairie ecosystem, and provide visitors the opportunity to experience native prairie grasslands. Approximately 150 persons participated in the Prairie Days event.

The DPG continued its partnership with the Casey Family Program to implement the

Conservation Education Youth Camp in 2001. The project targets underserved and disadvantaged youth the opportunity to increase awareness of natural resources, grasslands ecosystem, and related conservation issues while enhancing work skills and team building skills through trail and campground development on the Little Missouri National Grasslands. Approximately 10 youth participated in the 2001 Casey Family/Forest Service event.

Table 12. Grants awarded through the RCA grant program and Rural Development program in 2001.

Grant Applicant and Name of Project	Amount Awarded:	Purpose of Grant
Cooperstown/Griggs Economic Development Corporation- Cooperstown,ND Highway 200 Project.	$20,000 RCA Grant	To enhance the recreational and educational opportunities for the community of Cooperstown and surrounding area. The project includes development of a park and recreational area along Highway 200 to improve recreational facilities; add value and function to a waste area; improve park access; and to enhance the aesthetic value of the community. This project is 80% complete with anticipated completion date in summer 2002.
Development Inc. -- Milnor, ND Gateway to the Grasslands Project.	$12,000 RCA Grant	To promote the cultural, social, and economic opportunities associated with recreational and nature-based tourism opportunities on the Sheyenne National Grasslands. Project development includes the development of a "Gateway to Grasslands" marketing theme and signage that will enhance Milnor's business district, attract and direct incoming visitors to points of interest in the community. This project is 70% complete with anticipated completion date in summer of 2002.
City of St. John, ND (grant administered by the Rolette County Historical Society). Martineau House Tourism Information Center	$15,000 RCA Grant	To enhance economic development through tourism by restoring the Martineau House -- a 100 year old Victorian cottage listed on the National Registry of Historic Places – into a tourist information center. The City of St. John is located along a scenic byway through the Turtle Mountains and this project is one of several to promote the cultural and historic values of the community and surrounding area. This project is 80% complete with anticipated completion date in summer 2002.
City of Tioga Park District, Tioga, ND Tioga Park Improvement Project	$12,000 RCA Grant	To encourage tourism by developing park facilities that can accommodate incoming visitors traveling the Lewis and Clark route and to improve the quality of life for local residents and surrounding communities by improving existing park and recreational facilities. Park improvements include the construction of a bath house/shower facilities, picnic shelter, and campground improvements. This project is 70% complete with anticipated completion date in summer of 2002.
City of Washburn, ND Washburn Recreational Trail.	$20,000 RCA Grant	To improve recreational opportunities and quality of life for residents and incoming visitors through the construction of a recreational trail along the Missouri River that will connect the City of Washburn business district and park facilities to the Lewis and Clark Interpretive Center. This project is 50% complete with anticipated completion date in fall of 2002.
Porcupine Local District Porcupine, ND Community Action Plan	$1,000 RCA Grant	For the completion of the Porcupine Community Action Plan. The planning process was started in 2000 through assistance from the USDA Forest Service and North Dakota Forest Service. This project is 100% complete.
Great Lakes Inter Tribal Council American Indian Tourism Conference	$2,500 Rural Development Grant	For the sponsorship of the American Indian Tourism Conference to provide Tribes throughout the United States and international communities the opportunity to expand Indian business opportunities in domestic and international tourism and identify benefits available through tourism. The conference was held in Bismarck, North Dakota in September 2001 and drew 350 participants from 25 States, and from Canada, Germany, Japan, and Switzerland. This project is 100% complete.

Are issues identified in the Forest Plan resolved through Forest Plan implementation or with minor shifts in the Forest Plan? (H1) Are there new or emerging issues or changing socioeconomic values? (H2)

The Dakota Prairie Grasslands is currently in the process of revising the Land and Resource Management Plan. The FEIS and Revised Plan were made available to the public on July 27, 2001 through January 22, 2002 for a 180-day comment period. After analyzing the comments and preparing responses, Norhern Regional Forester Brad Powell signed the Record of Decision (ROD) on July 31, 2002.

Are the actual local economic effects of Forest Plan implementation as predicted or are they significantly different? (H3)

On the Dakota Prairie Grasslands units, the 1987 Custer Land and Resource Management Plan has never been completely implemented with regards to livestock grazing and achieving desired range and wildlife habitat conditions. Because these portions of the plan were never implemented, it is impossible to know whether the actual local economic effects of the Forest Plan are as predicted or significantly different. Populations surrounding the DPG units continue to decline, but determining the percentage of decline associated with Grassland management would be difficult.

Do annual budget fluctuations cause a ten percent or more loss of Forest outputs or significant changes in Forest Plan allocations? (H4)

Since the creation of the Dakota Prairie Grasslands administrative unit in November 1998, additional budgetary resources for the management of facilities and resources have made attaining outputs more feasible. This administrative change has brought needed skills closer to the ground where they are more accessible and able to implement management direction.

Are returns to treasury 80 percent or more of predicted levels? (H5)

Oil and gas revenues, disbursed to North Dakota from the DPG were up from $3,309,186 in FY2000 to $4,797,438 in FY2001. Total revenues in 2001 from all Federal onshore lands in North Dakota were up by 18 percent over 2000.

J. LANDS

The Forest Service may acquire rights of way by 1) purchase/donation of easement; 2) as part of a land exchange; or 3) in a cooperative effort with other governmental entities such as a County, State or other Federal agencies. Easements and land exchanges/purchases must have a Final Title Opinion from Office of General Council before they are considered accomplished and federal money spent on management and capital improvements.

Rights of way are acquired in support of resources such as trails for recreation, road access for oil and gas leases, for wildlife purposes such as Ducks Unlimited projects, for range stockwater purposes, fire and fuels management, and for capital investment projects. In addition, rights of way are acquired to provide general access to public lands.

Has at least 90 percent of the five year right-of-way/easement plan been accomplished? (J1)

Table 13: Rights-of-way Acquired, Roads and Trails

FY	Rights of Way Acquired	By
2001	1 road	Easement
2000	0	
99	1 road	Easement
98	2 roads	Easement
97	2 roads, 4 trails	Easement, cooperative efforts other agencies
Total	10 rights-of-way aquired for an average of 2 per year	

The Grasslands have acquired 67% of planned rights of ways in the Five Year Plan. In addition, the Grassland units have acquired the following rights for stockwater developments.

Table 14: Rights-of-way Acquired, Stockwater Developments

FY	Rights of Way Acquired	By
2001	0	
2000	0	
99	0	
98	2 stockwater pipelines	Notice of Ditches and Canals
97	2 stockwater pipelines	Notice of Ditches and Canals
Total	4 stockwater rights-of-way aquired for an average of .8 per year	

Has at least 80 percent of the five year land ownership adjustment been accomplished? (J2)

The United States, through the Forest Service may accomplish land adjustments by purchase, exchange, partial interest acquisition (such as minerals only estate) or Small Tracts Act Sale. Accomplishments are considered complete when a Final Title Opinion is granted by Office of General Council.

Criteria for land adjustment projects: Must be in the public's best interest; acquire a critical right of way; resolve an encroachment; protect/improve by acquisition a significant resource; reduce cadastral costs by reducing landlines and section corners; provide a more effective, and efficient public ownership pattern.

Land exchanges, purchases, donations, and partial interest acquisitions must have a Final Title Opinion from the Office of General Council before they are considered accomplished. A Small Tract Act Sale is considered complete when an executed Quitclaim Deed is conveyed to the landowner.

The Grassland Districts' Five Year Plan projects a five year average for the Grasslands of 822 acres per year accomplishment.

Table 15: Acres Acquired

FY	Acres Acquired	By
2001	160	Donation
2000	46.62	LWCF purchase
99	17.7	Donation
98	740 + 9,854 Partial Interest	Exchange, partial interest
97	794	Exchange
Total	1,759 acres aquired for a five year average of 352 acres.	

The Grasslands acquired 43% of the planned acres in the Five Year Plan. The partial interest exchange acquisition noted in 1998 was the legislated Burlington Resources/Meridian exchange of oil and gas.

L. FACILITIES

The Dakota Prairie Grasslands completed planning efforts and NEPA documentation of Buffalo Gap Campground, the Maah Daah Hey Trail Overnights, and CCC Campground. Construction and upgrades were completed in 2001.

Is road and trail construction/reconstruction at 80 percent of the five year program? (L1)

Trail construction continues to exceed Forest Plan estimates for FY2001. On the LMNG we constructed 6 miles of access trails from the new overnight sites on the Maah Daah Hey trail and from the Ice Caves parking lot to the MDH and 11 miles of the Buffalo Gap Trail.

On the Sheyenne we relocated and constructed 15 miles of the North Country Trail.

Miles of road construction and reconstruction across the DPG were 4.2 miles for recreation and 14.8 miles for oil and gas well development.

Is gained public access (defined by miles of road open) within plus or minus 20 percent of anticipated levels? (L2)

The DPG acquired one right-of-way in FY2001. The unit has aqcuired 67% of planned rights-of-ways in the five year plan, putting us within 33% of anticpated levels (reference Table 13).

Are at least 95 percent of road identified as no longer needed, closed within two years? (L3)

Seventeen miles of roads were decommissioned in 2001. These roads are oil and gas roads that have been identified for decommissioning when mineral production ceases. Under the Custer Plan we have not accomplished access and travel management, therefore roads have not been identified as no longer being needed.

P. PROTECTION

The Dakota Prairie Grasslands developed two engine modules, each consisting of a type 6 engine, engine foreman and four firefighters, to improve initial attack and extended attack capabilities, increase prescribed burning, and provide interagency fire assistance. The engine modules are stationed at the Medora and McKenzie Ranger Districts. Efforts continue

to develop agreements and provide training to rural fire departments to improve overall initial attack response and firefighter safety on the National Grasslands.

The Dakota Prairie Grasslands reported thirteen wildland fires in the 2001 fire season. All wildfires were five acres or less in size with the exception of the Elkhorn Fire, on the Medora Ranger District, which burned 158 acres. Suppression action was also taken on sixteen burning coal vein fires that resulted from the 1999 Gap Fire. Suppression strategies on thirteen of the coal vein fires involved trenching the perimeters and backfilling to prevent further movement of the fire along the coal vein. No suppression action was taken on three coal vein fires due to rugged topography and access. These fires will be monitored and adjacent fuels burned out periodically to reduce the risk of igniting wildland fires.

Note: Monitoring Items P2 and P4 do not apply to the Grasslands.

Have fuel treatment levels been at least 80 percent of programmed levels? (P1) Are 90 percent of fuel treatments meeting air quality standards? (P3)

Target fuel treatment levels for FY01 were set at 5,000 acres for the Dakota Prairie Grasslands. Approximately 4,643 acres were burned, slightly below programmed levels. This was a result of wet weather conditions in the spring that cut the optimal burning window short by several weeks. All burn plans address air quality, burn projects are subject to approval by the ND Department of Health, and burning occurs only when acceptable air standards can be met.

The Sheyenne District continues to implement prescribed fire aggressively for hazard fuel reduction, tall grass prairie restoration, improved forage, and reintroduction of fire as a natural disturbance process. Approximately 1,000 acres were burned during the fall, when lower areas were sufficiently dry to carry fire. Approximately 3,600 acres were burned in the spring, which was slightly below target expectations due to wet weather conditions.

The Grand River District has treated large acreages with prescribed fire in the past; however, in FY01 no prescribed burning was accomplished as the District focused their efforts on planning. As a result, more consistent opportunities for prescribed fire projects will occur beginning in FY02.

The Medora and McKenzie Districts are continuing to build trust and experience levels with cooperators and permittees. In FY01, no prescribed fire activity occurred; however, planning continued for a hazardous fuel reduction project in the Ponderosa pine area, which involves burning across private, state and federal lands. The Dakota Prairie Grasslands, Little Missouri Grazing Association, ND Forest Service, Amidon Fire Protection District, and private landowners are partners in the project that is scheduled for implementation in the fall FY02.

ROADLESS AREAS

Under the 1979 Roadless Area Review and Evaluation (RARE II), twelve areas were identified as inventoried roadless on the Dakota Prairie Grasslands. As required during Land and Resource Management Plan revision, roadless areas were again reviewed and an updated inventory was created. This new inventory for the DPG has since been finalized based on modifications made during the NEPA process for the Roadless Area Conservation FEIS dated November 2000.

Are the acres in a roadless condition (including low development areas) at least 90 percent of anticipated levels?

The new inventory includes a total of 24 areas equalling 279,637 acres on the Little Missouri, Sheyenne, and Grand River National Grasslands. There are 218,925 acres in 17 areas on the Little Missouri; 46,522 acres in five areas on the Sheyenne; and 14,190 acres in two areas on the Grand River.

Given the presence of private mineral rights under Forest Service surface ownership; as well as existing government leases that lack special stipulations to prevent development of the surface, oil and gas development has and is occurring in some of these areas. Because of the success of development, it is expected that more future mineral development in these areas will occur.

III. COMPLETED FOREST PLAN AMENDMENTS

The Custer National Forest Plan has been amended thirty-six times since it was approved in 1987. A number of these amendments apply to the Dakota Prairie Grasslands. See Appendix B for a complete list of amendments.

IV. GRASSLANDS PLAN REVISION

The Northern Great Plains Land and Resource Manangement Plan Revision process began in 1996. Revision topics and preliminary alternatives were presented at a series of public meetings from February through April of that year. Revision topics included:

- Community relationships
- Livestock grazing
- Oil and gas leasing
- Plant and animal damage control
- Rangeland and forest health
- Recreation and travel management
- Special area designation

Publication of the Draft Environmental Impact Statement and proposed Revised Plan on July 16, 1999 was followed by a 90-day public comment period which was scheduled to end October 13, 1999. In response to public requests, the comment period was extended three additional times until February 3, 2000.

Letters were received from over 26,000 agencies, local governments, organizations, tribes, and individuals resulting in nearly 110,000 individual comments. Approximately 14,258 letters containing comments specific to the Dakota Prairie Grasslands were received.

Each comment was analyzed for issues (content analysis) and entered into a database. From that point we began identifying where in the existing documentation that issues had been dealt with and a determination was made if the issue had been dealt with adequately.

As a result of the content analysis, we reworked some of the effects analyses using better

information and improved procedures. Some of the management direction presented in the draft LRMP was also changed.

The Final Environmental Impact Statement and the Revised Plan were released for public review and comment on July 27, 2001. Comments were accepted for a 6-month period ending January 22, 2002. Over 48,000 comments were received on the the FEIS.

There are a wide variety of viewpoints on the Revised Plan, the planning process, and the decisions that should be made with regards to management of these grasslands. After extensive review and analysis of the comments received; in addition to consultation with the North Dakota Congressional Delegation and Governor's Schafer and Hoeven, the Record of Decision (ROD) was signed on July 31, 2002.

APPENDICES

Appendix A: Dakota Prairie Grasslands LRMP Monitoring

Dakota Prairie Grasslands Land and Resource Management Plan (July 2001). Monitoring questions in Chapter 4. Questions presented are only those that we are actively collecting data for.

RIPARIAN 1:

To what extent are perennial streams in proper functioning condition and riparian areas and wooded draws self perpetuating?

> We have not performed an assessment on any of the perennial streams, riparian areas, or wooded draws that are self-perpetuating. We have contracted to have Hydrologic Condition Assessments completed for Cedar River National Grasslands, There are several perennial streams on this grassland and we will provide a report in FY03.

SOIL 1:

To what extent have soils eroded or disturbed by Forest Service management or permitted activities been restored?

> There are several areas where soil has eroded on our grasslands but we did not have a reliable tool to measure the damage. We have contracted with USGS-ND Water Resources Division to monitor erosion in the uplands, rolling prairie and the badlands to determine how fast the soil in activity areas is eroding and what tools we should use to restore those areas. We have restored the stream banks in the Ash Coulee project by fencing but we may be able to use other tools once we have the conclusions from USGS.

WATERSHED 1:

To what extent has water quality condition on watersheds containing national grasslands been restored, maintained or improved?

We are also monitoring Ash Coulee water quality. We will not know to what extent we have restored, maintained or improved the water quality in that area until we have data from a minimum of 2 years of monitoring.

WATERSHED 2:

To what extent have water bodies on the national grasslands that have been degraded by Forest Service permitted or management actions been restored?

There are several areas where water bodies have been degraded by damming. We are inventorying those areas and we have identified four dams that have not been maintained. We have contracted to have them removed and for the stream/spring to be restored to natural flows.

WATERSHED 3:

To what extent have instream flows been assured to provide adequate water for fisheries and other riverine flora and fauna in streams and rivers with high resource values?

On the Sheyenne District we have contracted with USGS to install a weir on Iron Springs to measure the flow quantity and quality. We are also performing bank full measurements so that we can control the amount of water passing down the stream and control bank erosion. There are fish in the stream but they are not rare or sensitive. We have not inventoried the riverine flora or fauna.

WATERSHED 4:

To what extent have surface water, subsurface flows, and aquifers been protected from contamination by management actions on the Dakota Prairie Grasslands?

On the Sheyenne District we have installed monitoring wells in areas where we have meta populations of the listed, Western Prairie Fringe Orchid. We are measuring the chemical, biological and physical properties of the water as a quality control measure to insure that our weed management program is not contaminating the surface and subsurface flows. We also have wells monitoring the quantity of water, given the proximity of centrifugal irrigations systems adjacent to the tall grass prairie habitat and the orchids.

MIS 2:

What is the current habitat suitability for each management indicator species?

Evaluating the current condition and trend of key habitats for the DPG's management indicator species is a requirement under NFMA. In 2001, key habitat for western prairie fringed orchid (see section C, tables 4 and 5) and the three species of prairie grouse (greater prairie chicken, greater sage-grouse, and sharp-tailed grouse) were assessed (see Table 1, 1a, and 2 above). Key habitat suitability for the remaining management

indicator species, black-tailed prairie dog, will be addressed in 2002.

MIS 3:

What are the population trends for western prairie fringed orchid and associated species? How have management activities affected this trend and the species' overall recovery?

Population trends for the orchid have been followed through metapopulation monitoring and pasture counts (see section C, tables 4 and 5). The impact of management activities was monitored by demographic monitoring (see section C, table 5).

MIS 5:

What are the population trends for sage and sharp-tailed grouse and greater prairie chicken and associated species? How have management activities affected these trends?

Lek counts for greater sage-grouse are conducted annually by the North Dakota Game and Fish Department. The Dakota Prairie Grasslands annually monitors greater prairie chickens and sharp-tailed grouse. Results are given above.

T & E 1:

To what extent is the Dakota Prairie Grasslands and its management contributing to the recovery and viability of black-footed ferrets?

On the Dakota Prairie Grasslands, black-tailed prairie dog colonies are potential habitat for the endangered black-footed ferret. The USDI Fish and Wildlife Service is interested in evaluating black-footed ferret reintroduction in any area where a prairie dog complex exceeds 1,500 acres. Currently no area meets this criteria. Under the Dakota Prairie Grasslands proposed Land and Resource Management Plan, prairie dog expansion would be emphasized in the Horse Creek area, the area surrounding the South Unit of Theodore National Park, Indian and Boyce Creek, and the south ½ of the Grand River National Grassland.

T & E 2:

To what extent is the Dakota Prairie Grasslands and its management contributing to the recovery and viability of bald eagles?

Bald eagles do not nest on the DPG, nor does regular wintering occur. Incidental use is made of the grassland by migrating bald eagles, and occasionally by wintering ones.

T & E 3:

To what extent is the Dakota Prairie Grasslands and its management contributing to the recovery and viability of whooping crane?

The Dakota Prairie Grasslands might occasionally be used by migrant whooping cranes, but no nesting or wintering habitat is available. In 2001, no whooping cranes were sighted on the Dakota Prairie Grasslands.

T & E 4

Are actions identified in national recovery plans for threatened and endangered species being implemented where opportunities exist on national grasslands?

The recovery plan for the western prairie fringed orchid identifies several tasks that the US Forest Service is currently implementing. The primary tasks relevant to the Dakota Prairie Grasslands include:

- Develop and implement habitat management plans that sustain and enhance orchid populations.
- Conduct appropriate research and monitoring.
- Identify and search potential habitat.

For more information on how we are accomplishing these tasks see section C in this report.

VIABILITY 2:

To what extent is the Dakota Prairie Grasslands contributing to the viability of sensitive plant, animal, and fish species?

A priority for the Dakota Prairie Grasslands is to update inventory and monitoring information for sensitive plant, animal, and fish species. Great progress was made in 2001, with the initiation and/or completion of several new projects. Among these was the resurveying of most of the known populations of Dakota buckwheat on the Little Missouri National Grassland and Grand River National Grassland. Surveys for sensitive butterflies were conducted at Denbigh Experimental Forest and on the Sheyenne, Grand, and Cedar River National Grasslands. In addition, all prairie dog colonies were surveyed for burrowing owls in 2001. Other projects benefiting sensitive species included monitoring of grassland birds, prairie grouse, and amphibians. The most ambitious effort was the surveying, mapping and monitoring of sensitive plant species along the Sheyenne River on the Sheyenne National Grassland. Project reports from these efforts are being posted on the Dakota Prairie Grasslands' website, as they become available. Also see section C within this monitoring report.

DAMAGE CONTROL 1:

To what extent are noxious weeds, invasive species, and animal damage expanding or being reduced?

Dakota Prairie Grasslands employees will emphasize updating current inventory and mapping of invasive species during the field season of 2002. This information will be used to assess the monitoring question concerning the effectiveness of ongoing invasive species control efforts.

RECREATION 1:

To what extent are trails managed to meet regional standards and to minimize conflicts among users?

The DPG in conjuction with partners such as the Maah-Daah-Hey Trail Association, North Dakota Department of Parks and Recreation, and the National Park Service will conduct trail condition surveys on 20% of the DPG's trails each year, 2002-2015.

RECREATION 2:

Where does the demand for recreation opportunities warrant development of additonal opportunities such as trails or campgrounds?

In 2002, a National Visitation and Use Management (NVUM) survey is being completed on the DPG.

HERITAGE 1:

To what extent are national register sites and districts being identified, protected, and preserved?

The DPG provides an annual report to ND and SD and Tribal Historic Preservation Offices. As part of this assessment, a cattle damage survey will continue to be run into 2004.

RESEARCH NATURAL AREAS 1:

To what extent have the unique research features of research natural areas been conserved or enhanced?

Monitoring was conducted at Two Top-Big Top, Limber Pine, and Sheyenne Springs RNAs. For more information see section C of this report.

GEOLOGIC & PALEONTOLOGIC RESOURCES 1:

To what extent are geologic and paleontologic resources being made available for the education, use or enjoyment of the general public?

The DPG has entered into an MOU with the ND Geological Survey to collect paleontologic resources and make them available for education of the general public. In addition, for 2002 we have a Passport in Time project involving the recovery of paleontologic resources under supervision of the ND Geologic Survey and the Forest Service.

Appendix B: Custer Forest Plan Amendments

Amendment Number	Description	Date Approved
1	Includes "Uniform Format for Oil and Gas Lease Stipulations" in the Forest Plan	03/29/91
2	Adds Wild/Scenic/Recreational River Forest-wide Management Standards to the Forest Plan	12/15/89
3	Corrects table on page 49 that identifies key wildlife habitat by Ranger District and species of concern	03/29/91
5	Eliminates oil and gas production as a monitoring item	03/29/91
6	Changes the wording that allows camping in the administrative site at Meyers Creek Station on the Beartooth District	03/29/91
7	Changes the budget as displayed on page 163	03/29/91
8	Includes management standards and guides in response to the passage of the Federal Cave Resource Protection Act of 1988	03/29/91
9	Makes Dutchman's Barn, Long X Divide, Twin Buttes, and Blue Buttes not administratively available for oil and gas leasing	10/24/91
10	Changes the visual classification from partial retention to retention for certain areas surrounding Theodore Roosevelt National Park	10/24/91
11	Includes the Ferruginous Hawk as a sensitive species in North Dakota	10/24/91
12	Changes the dates for protection of prairie grouse dancing grounds from 3/1-4/15 annually to 3/1-4/30 annually	10/24/91
13	Management standards changed for Woody Draws (Mgt Area N) to require a "No Surface Occupancy" (NSO) stipulations	10/24/91
14	Removes 459 acres from the suitable timber base on the Sioux Ranger District	05/21/93

16	Adds definitions of "Existing Visual Condition" to the Forest Plan	05/21/93
17	Adds the name of Whitetail Area to the list of Management Area Cs	05/21/93
18	Revises table on pages 77 and 78 of the Forest Plan to reflect the current status of RNAs and SIAs	05/21/93
19	Changes the Oil and Gas Administratively Available decision for portions of the Beartooth District	05/23/96
20	Updates the key species/critical timing periods found on page 19 of the Forest Plan	05/23/96
21	Removes the area-wide NSO requirement for MA C Line Creek and replaces it with the stipulations identified in Alternative 4A of the Beartooth Mountain Oil and Gas Leasing FEIS and related Record of Decision	05/23/96
23	Corrects the list of Ranger Districts at the top of page 80 of the Forest Plan showing where MA M occurs	06/93
26	Incorporates a list of Recreation Residence Tracts into the Forest Plan	Correction 01/94
27	Adds a list of plants, animals and fish that are sensitive in Montana.	06/93
28	Changes the status, acreage and wording of Forest Plan Amendment Number 18 for Lost Water Canyon.	07/20/94
29	Modifies/adds stipulations to be applied to new oil and gas leases as identified in Amendment Number 1.	04/27/96
30	Changes the dates and disturbance zones shown for key species on pages 19 and 172, as amended by Amendment Number 12.	04/27/96
31	Adds the name of Round Top Butte to the table on pages 77 and 78, as replaced by Amendment Number 18.	04/27/96

32	Includes the Ashland Ranger District on the list of areas where Management Area N occurs.	03/09/96
33	Re-classifies 170 acres (in portions of seven stands) on the Ashland Ranger District from unsuitable to suitable for timber production.	05/17/96
34	Changes status of Line Creek Plateau Research Natural Area from "Candidate RNA" to "Established RNA." Acreage is changed from undetermined to 19,369 acres.	6/29/2000; pending outcome of appeal.
35	Re-classifies 109 acres (in portions of seven stands) on the Ashland Ranger District from unsuitable to suitable for timber production.	6/19/1998
36	Permits the continued use of 16 acres within Management Area H for the Timberline Snow Survey Course on the Beartooth Ranger District.	

WITHDRAWN FOREST PLAN AMENDMENTS

Amendment Number	Remarks
4	Not implemented 4/5/91. The Forest did not have a Forest Biologist at the time to do the necessary consultation with the US Fish and Wildlife Service to finalize the amendment.
15	Allowed a site-specific exception to create openings in excess of 40 acres to facilitate development of fuel breaks on the Sioux Ranger District. Withdrawn 7/28/93.
22	Identified specific communication sites in response to changing requirements. Withdrawn pending further analysis.
24	Applied the Wild/Scenic/Recreation River Forest-Wide Management Standards that were developed in Forest Plan Amendment Number 2 to the Little Missouri River, Rock Creek, the West Fork of Rock Creek and the Stillwater River. Withdrawn in 1994. Covered under Forest Plan Amendment Number 2.
25	Added timing restrictions and dates for the protection of the ferruginous hawk. Withdrawn in 1994. Incorporated into Forest Plan Amendment Number 20.
37	Re-classifies 7,963 acres of lands designated as tentatively suitable for timber production to unsuitable. 12/22/00