

# The Grassland Reserve Program: New Opportunities to Benefit Grassland Wildlife

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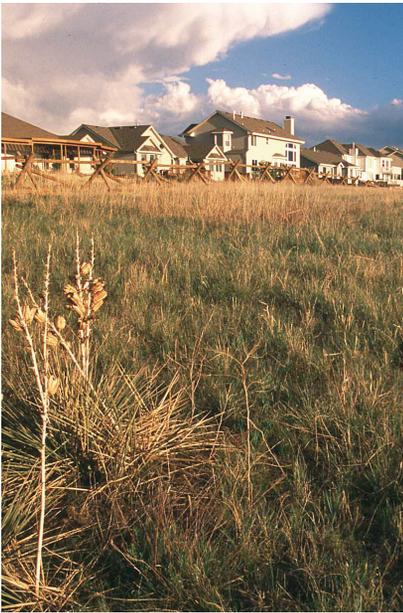
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## Abstract

*The Grassland Reserve Program (GRP) was established by the 2002 Farm Bill to provide assistance to landowners in conserving and enhancing ecological value of grasslands while maintaining their suitability for grazing and other compatible uses. In response to long-term declines in grassland acreage and their associated benefits, approximately 524,000 acres have been enrolled since fiscal year 2003 in a variety of long-term rental agreements and easements. The program has proven popular with landowners. Whereas wildlife benefits have likely accrued by protection, enhancement, and restoration of grasslands enrolled, little effort has been made to quantify wildlife response during the first 2 years of program operation. Additional studies are needed to document wildlife benefits achieved.*

## Introduction

Historically, grasslands and shrublands occupied approximately 1 billion acres of the contiguous United States—about half the landmass. Roughly half of these lands have been converted to cropland, urban land, and other land uses. Non-federally owned grasslands in the U.S. (pastureland and rangeland) currently cover approximately 522 million acres (Natural Resources Conservation Service, 2002 National Resources Inventory). Grasslands provide both ecological and economic benefits to



Urban sprawl threatens shortgrass prairie in Colorado. (J. Vanuga, USDA-NRCS)

local residents and society in general (Licht 1997). Grassland importance lies not only in the immense area covered, but also in the diversity of benefits they produce. These lands provide water for urban and rural uses, livestock products, flood protection, wildlife habitat, and carbon sequestration services. These lands also provide aesthetic value in the form of open space and are vital links in the enhancement of rural social stability and economic vigor, as well as being part of the nation's history.

Grassland loss through conversion to other land uses such as cropland, parcels for home sites, invasion of woody or nonnative species, and urban and exurban development threatens grassland resources (Knight et al. 2002). Between 1982 and 2002, non-federal acreage devoted to grazing uses (rangeland, pastureland, and grazed forest land) declined from 611 million acres in 1982 to 578 million acres in 2002, a decrease of over 5%. Between 1992 and 2002, the net decline in grazing land acreage was about 3% (Natural Resources Conservation Service, 2002 National Resources Inventory). Today, grasslands are considered North America's most endangered ecosystem (Noss et al. 1995, Samson and Knopf 1996).

## Program Description

In recognition of the importance of grasslands and the threats they face, the Grassland Reserve Program (GRP) was created by the Farm Security and Rural Investment Act of 2002 (i.e., 2002 Farm Bill). The GRP is a voluntary program that helps landowners and operators restore and protect grassland, including rangeland, pastureland, and certain other lands, while maintaining the lands' suitability for grazing. The GRP is a voluntary program with the goal of conserving, enhancing, and restoring eligible land through easement purchases and rental agreements with landowners. As required by statute, emphasis is on supporting grazing operations, plant and animal biodiversity, and grassland and land containing shrubs or forbs under the greatest threat of conversion. The following privately owned or tribal lands are eligible for enrollment:

- Grasslands (including lands on which the vegetation is dominated by grasses, grass-like plants, shrubs, and forbs, encompassing rangeland and pastureland).
- Land located in an area historically dominated by grassland, forbs, or shrubland, with potential to serve as habitat for ecologically significant animal or plant populations, if retained in its current use or restored to a natural condition.
- Incidental land contributing to properly configuring boundaries, allowing efficient management of the area for easement purposes and otherwise promoting and enhancing GRP objectives. Parcels of less than 40 contiguous acres are generally ineligible, but may be accepted

where program objectives are met and there are opportunities to protect sites with unique grassland attributes.

Participants have the opportunity to enroll acreage in rental agreements with durations of 10, 15, 20, or 30 years, or long-term or permanent easements. Under both easements and rental agreements, participants have the opportunity to utilize common grazing-management practices to maintain the viability of the grassland acreage. Landowners retain ownership and associated responsibilities, including property taxes, and are required to follow a conservation plan on all acres enrolled in the program.

Technical and financial assistance is provided to restore the natural grassland functions and values. No acreage limit is placed on total enrollment, but a maximum of 2 million acres may be enrolled for the purpose of grassland restoration. Program payments are determined as follows:

- For permanent easements, the fair market value of the land less the grazing value of the land encumbered by the easement.
- For 30-year easements or easements for the maximum duration allowed under applicable state law, 30% of the fair market value of the land less the grazing value of the land.
- For rental agreements, annual payments not to exceed 75% of the annual grazing value.
- For previously cultivated land, cost-share payments of up to 75% of the cost of grassland restoration is provided. For land that has never been cultivated, restoration cost-share rate may be up to 90%.

The program is jointly administered by the Natural Resources Conservation Service (NRCS) and the Farm Service Agency (FSA). The NRCS has lead responsibility on technical issues and easement administration, and the FSA has lead responsibility for rental agreement administration and financial activities. The program operates under a continuous signup process. The NRCS and FSA, working in consultation with state technical committees, use state-developed ranking criteria to ensure GRP funds are directed toward the most appropriate projects for the local area. Additional information on the specifics of program operation is provided at <http://www.nrcs.usda.gov/programs/GRP/>.

## **Program Funding and Enrollment**

The 2002 Farm Bill authorized \$254 million to be spent on GRP over fiscal years 2003–2007. Under this authorization, approximately \$169 million of financial assistance has been made available for GRP during fiscal year (FY) 2003, FY 2004, and FY 2005. These funds have supported

enrollment of approximately 524,000 acres during the first 2 years of program operation (Table 1). The program is operational in all 50 states. However, much of the acreage enrolled is encompassed by large contracts on central and western rangelands, whereas a large number of smaller contracts are scattered throughout the country (Figure 1). Contrasting FY 2004 enrollment activity in Georgia and Montana illustrates this point, where 8,966 acres in 57 contracts were enrolled in Georgia and 10,353 acres in just 3 contracts were enrolled in Montana.

Figure 1. Distribution of number of acres and contracts enrolled in the Grassland Reserve Program during fiscal year (FY) 2004.

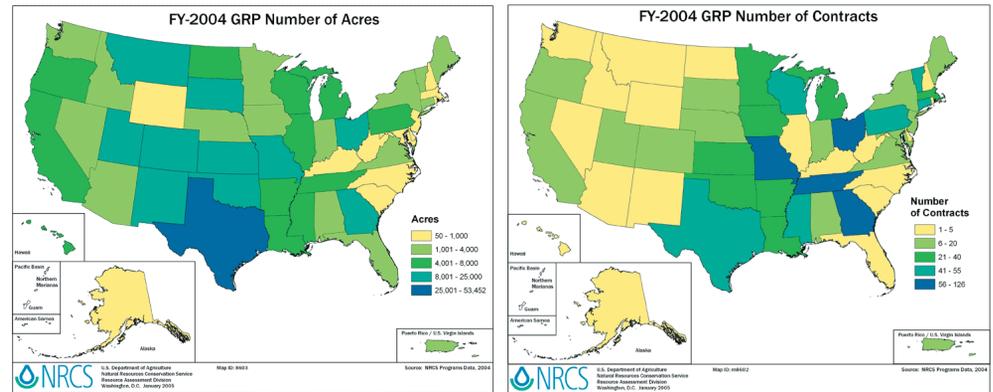


Table 1. Grassland Reserve Program (GRP) enrollment activity during fiscal year (FY) 2003–2004.

Enrollment activity	FY 2003	FY 2004	Total
Number of participants enrolled	794	1,055	1,849
Acres enrolled	240,965	283,338	524,303
Acres enrolled consisting of native grassland, rangeland, and shrubland permanently protected through GRP conservation easements	60,341	78,218	138,559
Acres protected to benefit declining species	134,098	255,000	389,098
Number of unfunded applications		9,091	
Acres associated with unfunded applications		6,241,587	
Unmet funding need associated with unfunded applications		\$1,498 million	

Interest in the program has far outpaced the funding available—the number of applications received in FY 2004 was approximately 10 times the number accepted (Table 1). The vast number of applications received has enabled the agencies to select high-quality applications, resulting in nearly 75% of acres enrolled targeted toward benefiting declining species (Table 1).

## Wildlife Benefits

Because FY 2003 was the first year of GRP implementation, efforts to evaluate wildlife response to program enrollments since then have been minimal. We found no published wildlife studies specifically related to

lands enrolled in the GRP. However, observations can be made regarding the potential for GRP to provide significant benefits to some species and species groups being targeted by program implementation.

By prioritizing enrollment acceptance to lands with the greatest biodiversity and where the threat of conversion to other land uses is greatest, GRP is maximizing the benefits to wildlife species that depend on these lands for survival. The program is being implemented to target declining species and has made substantial progress in protecting existing native grassland communities. Through FY 2004, over 138,000 acres of natural grassland systems have been protected by permanent easements. With proper management, these lands are ensured of providing long-term wildlife habitat and other ecological benefits. Although GRP enrollments potentially benefit a wide array of grassland-associated wildlife, several examples of species benefited are worth noting here.

### *Sage-grouse*

The greater sage-grouse (*Centrocercus urophasianus*) is a native upland game bird that is considered a sagebrush ecosystem-obligate species of the Intermountain West. Sage-grouse populations have declined steadily across much of its range since European settlement (Connelly et al. 2000). Habitat degradation through altered fire regimes, fragmentation, land-use conversion, and introduction of exotic invasive species has contributed to this decline (Connelly et al. 2004). In FY 2004, USDA provided \$2 million in additional GRP financial assistance to 4 western states for greater sage-grouse conservation and recovery on lands identified by state wildlife agencies as containing critical sage-grouse habitat. The funds are being used for enrollment of GRP easements on private lands in Colorado, Idaho, Utah, and Washington, with technical assistance and additional financial assistance provided through state and local partnerships. Improving the habitat quality through manipulating vegetation to increase the amount of forbs available for brood habitat (Wirth and Pyke 2003) and reducing the amount of separation between summer and winter habitats are important elements of GRP activity to benefit sage-grouse.

### *Grassland Birds*

As a group, North American grassland breeding bird populations have declined significantly in recent decades (Sauer et al. 2004). Loss of grasslands on the breeding grounds and habitat fragmentation are considered among the causes most responsible for these declines (Burger et al. 1994, Vickery et al. 1999, Herkert et al. 2003). Efforts to restore degraded grassland habitats and reestablish previously converted grasslands have been shown to benefit grassland birds and may have



Pronghorn antelope in shortgrass prairie. (G. Kramer, USDA-NRCS)

the potential to help stem population declines. For example, Fletcher and Koford (2002) found bird communities in restored grasslands in Iowa to be similar to those in natural grassland habitats. Grassland Reserve Program enrollments have the potential to benefit grassland birds by restoring local habitat quality and reducing the effects of habitat fragmentation on prairie landscapes. Species benefited include Neotropical migratory song birds as well as non-migrating birds such as prairie-chickens (*Tympanuchus* spp.) and northern bobwhites (*Colinus virginianus*).

### *Big Game Corridors*

Lands enrolled in GRP are also preventing fragmentation of critical migration habitat corridors for elk (*Cervus elaphus*), mule deer (*Odocoileus hemionus*), and pronghorn antelope (*Antilocapra americana*).

## **Knowledge Gaps**

Native grasslands vary widely in their quality and characteristics. Grasslands can range from virgin prairie to heavily grazed native rangeland to pasture lands dominated by introduced forage species. Identifying and selecting ecologically significant and unique grasslands would maximize the GRP's ability to secure many of the environmental benefits grasslands provide. At this point, the vegetation composition and wildlife populations of GRP lands have not been adequately studied to characterize wildlife benefits realized.

Additional questions remain regarding how GRP enrollments influence overall land use at landscape scales. Specifically, we do not know whether the benefits obtained by GRP enrollments are offset by conversion of other grasslands to other uses.

## **Conclusions**

The GRP offers the opportunity to protect and restore up to 2 million acres of grasslands, many of which will be on existing native grasslands. While quantitative data that describe wildlife response are lacking, GRP has the potential to provide substantial benefits to declining species associated with grassland ecosystems in the United States. Additional studies are needed to enable program managers and participants to understand and maximize wildlife benefits derived from GRP enrollments.

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