

October 2001, the BLM began implementing the management plan by conducting a controlled burn to remove thatch on 162 ha (400 ac); subsequent monitoring shows that the burn was successful, and new forage plants have sprung up in the burn zone (Ralph Klein, BLM, pers. comm. 2001). In 2002, the BLM implemented several habitat improvements, including prescribed burning, mowing, water developments, stream restoration, interior fence removal, and noxious weed control (District Manager, BLM, *in litt.* 2002). We will continue to track the implementation of the NBHMA management plan through annual monitoring reports from the BLM, and as part of the post-delisting monitoring program.

The management plan also provides for a range of recreational opportunities within the NBHMA (nonmotorized trail use, hunting, and a boat ramp) (BLM 2001). In our Biological Opinion on the management plan, we concluded that these activities are compatible with management for Columbian white-tailed deer and other special status species, because the potential increase in public use that may result is not anticipated to negatively impact the deer, and the large amount of escape cover and forage areas available will provide an ample amount of refuge where disturbance may be avoided (Service 2001).

Mildred Kanipe Memorial Park, managed by the DCPD, is the second largest parcel of publicly owned land (445 ha) (1,100 ac) within the range of the Douglas County DPS; it lies about 16 km (10 mi) north of the NBHMA. Ms. Kanipe left the ranch to Douglas County in her will and directed the County to manage it as a wildlife refuge and working ranch (Kanipe 1983). Park activities, including recreation (equestrian and hiking trails), timber harvest, farming, and grazing are guided by the provisions in Ms. Kanipe's will, a new management plan, and the Douglas County Farm Lease program (Kanipe 1983; Douglas County Parks Department 2001a; Douglas County Parks Department 2001b). Ms. Kanipe's will states that the ranch is to be used for park purposes and includes a number of conditions relating to its management as a park: (1) No hunting or trapping is allowed; (2) all animals, birds, and fish are protected as in a refuge, provided that the county, for park purposes, may plant and permit fishing in the ranch ponds; (3) trapping and hunting of predatory animals is allowed in the event that they become a nuisance and harmful to domestic and wild animals both within the park and on adjoining lands; (4) the County may

establish a limited picnic ground and associated parking facilities, but no motorized vehicles are permitted within the park except as may be required for park construction and maintenance; (5) pasture lands are to be cared for and continued in grass, and equestrian trails shall be permitted; and (6) no timber shall be cut or harvested except as may be necessary, and even then, only upon a sustained yield basis with all revenue from timber cutting used by the county in capital improvements upon the park (Kanipe 1983). The current farm lease at the park allows the lessee to graze sheep and cattle at the ranch. The terms of the lease include provisions to maintain pasture quality, minimize soil erosion, eradicate noxious non-native plants, and protect native wildlife and watercourses (Douglas County Parks Department 2001b). The annual farm lease provisions are reviewed and approved by the ODFW biologists (M. Black, ODFW, pers. comm. 2001).

Douglas County has prepared Coordinated Resource Management Plan Recommendations for Mildred Kanipe Memorial Park; a Steering Committee has been established, which includes representatives from our staff, local environmental and recreation groups, the Douglas County Parks Advisory Board, and individuals with forestry and range expertise (Douglas County Parks Department 2001a). The management plan covers a wide range of issues, including recreation, wildlife, grazing, timber management, and riparian conservation (Douglas County Parks Department 2001a).

Since 1998, the ODFW has conducted three translocations of marked Columbian white-tailed deer to the park. Of the 18 deer transplanted to the park, 7 are known to have died. Of those that died, one was an accidental death, two were killed by vehicles, one is suspected to have died of natural causes, two were likely the result of predation, and one was most likely an illegal kill (M. Black, ODFW, pers. comm. 2001; S. Denney, ODFW, pers. comm. 2001). The survivors have remained in or near the park, and at least two radio collared does have been observed with fawns (S. Denney, ODFW, *in litt.* 2001). In 2001, 25 deer were counted in the park (S. Denney, ODFW, pers. comm. 2001).

Between the years of 1996 and 2002, the ODFW implemented 23 enhancement projects to improve habitat for Columbian white-tailed deer on private property in Douglas County; most of the projects focused on improving riparian habitat conditions (Lindsay Ball, ODFW, *in litt.* 2002). These projects resulted in over 66 acres

of stream-side habitat improvements for deer.

One parcel on private property provides protection for Columbian white-tailed deer habitat in perpetuity. In 1992, TNC purchased the Oerding Preserve at Popcorn Swale, a 14-ha (35-ac) site which is managed primarily for the endangered rough popcorn flower (*Plagiobothrys hirtus*) (Service 2000). The management objective at the preserve is to restore the native wet prairie (TNC 2001), but the preserve also provides some suitable foraging habitat for deer. Surveys have detected about 20 Columbian white-tailed deer on the parcel (S. Denney, ODFW, pers. comm. 2001).

Douglas County has implemented land-use plans and zoning ordinances that apply to private lands to protect habitat and assist in deer recovery (DCPD 2000a). These protective measures include retention of existing land uses that maintain essential habitat components. Minimum lot sizes for farm use and timberlands, as well as building setbacks along riparian zones, have been established to ensure maintenance of habitat and travel corridors (ODFW 1995; DCPD 2000a).

Douglas County's Columbian White-tailed Deer Habitat Protection Program was established in 1980 (DCPD 2000a). The County, in conjunction with the ODFW and us, identified the range of habitat with the greatest density of Columbian white-tailed deer, and 29,743 ha (73,495 ac) were designated as Essential Habitat Areas (DCPD 1995). Potential conflicting uses within the Essential Habitat Areas were identified as: (1) Residential development in native riparian habitat; (2) additional livestock development in lowland river valleys; and (3) brush clearing, aimed at creating and improving pastures for livestock, that removes cover for deer (DCPD 2000a). To address these concerns, 96.5 percent (28,553 ha) (70,555 ac) of the resource lands (agricultural or farm/forest) within the Essential Habitat Area are subject to a minimum parcel size of 32 ha (80 ac); any land division requests of less than 30 ha (75 ac) must be reviewed by the ODFW (DCPD 2000a). Land zoned as nonresource lands within the Essential Habitat Area (3.5 percent) is limited to single family dwellings, and rural residential development is limited to 0.8 ha (2 ac) and 2 ha (5 ac) lots (DCPD 1995; DCPD 2000a). Another component of Douglas County's program to preserve habitat for the subspecies is a 30-m (100-ft) structural development setback from streams to preserve riparian corridors within the Essential Habitat Area (DCPD 2000a).