Treatment of wild horses and burros has improved remarkably over the last fifty years. In the mid-twentieth century, free-ranging horses and burros suffered horribly at the hands of “mustangers” who captured them at will and whim, sometimes using the most brutal of techniques, including aerial pursuit and shooting or crippling key herd members. The horses were packed into livestock trucks hurt, bleeding, and exhausted, and shipped to slaughter without stopping for rest or watering (Ryden 1999). Unprotected by law, only the good will of a few ranchers protected these abused animals. Public awareness of the plight of the wild horses began to grow in the late 1950s, in large part because of the efforts of Velma Johnston, better known as “Wild Horse Annie,” a Nevada-born rancher who witnessed, documented, and publicized the cruelties of the mustangers. First shocked to action after following a blood trail from a truck transporting mustangs to slaughter, Johnston roused the American public, and especially schoolchildren, to demand action from Congress (Ryden 1999). Congress first responded with the “Wild Horse Annie” Act of 1959 (PL. 86-234), which banned pursuit of unbranded horses on federal land by aircraft or motor vehicle. Later Congress enacted the Wild Free-Roaming Horse and Burro Act of 1971 (PL. 92-195). One of the great success stories of animal protection, the 1971 act declared it to be federal policy that “wild free-roaming horses and burros shall be protected from capture, branding, harassment or death; and to accomplish this they are to be considered in the area where presently found, as an integral part of the natural system of the public lands” (16 U.S.C. §1331). (The “public lands” are defined as federal land managed by the Bureau of Land Management [BLM] and the U.S. Forest Service, which therefore excludes national parks and national wildlife refuges.) The act charged the BLM with locating, inventorying, and managing these animals. Regrettably, the BLM—which truly is a land management agency—was unprepared and ill-equipped to undertake this charge.

Passage of the act was the clearest possible statement that the American public would not and will not tolerate any kind of cruelty or abuse of wild horses. This message has been reinforced repeatedly in the form of public outrage, widespread media coverage, and a generous influx of reward money that occurs whenever wild horses are reported to have been shot, maimed, or otherwise abused. In December 1998, for example, thirty-three unbranded, free-roaming horses were found dead of gunshot wounds near Reno, Nevada. (Because these horses were shot on state rather than federal lands, they were not protected by the 1971 act.) The international outrage generated by this senseless killing stimulated the formation of an unusual coalition of wild horse advocates, animal welfare groups, ranchers, and prosecutors to lobby for new state legislation making the malicious killing of unbranded livestock a felony. In June 1999, less than seven months after the shooting, Nevada S.B. 396 was signed by the governor after having been passed unanimously by both houses of the legislature (Nevada Legislature, 70th Session Bill Information, http://www.leg.state.nv.us/70th/Reports/). According to the Reno Gazette Journal (Associated Press 2002), the judge presiding over the trial of the three men accused of killing the horses reportedly received tens of thousands of letters from people upset about the case.

What is a Wild Horse?
The dramatic shift in the treatment of wild horses reflects a deeper shift in American public attitudes towards horses and other animals. Most clearly Americans have come to view wildlife more from a moralistic and humanistic perspective and less from a domin-
ionistic perspective, although utilitarian views still are strong regionally (Kellert 1996). And wild horses and burros are wildlife, aren’t they?

The answer to that question depends on whom you ask and when you ask, which is one reason why it often is so difficult to resolve issues concerning wild horse management. Many (but not all) ranchers whose livestock share the public lands with wild horses and burros continue to view them as misplaced livestock. These ranchers see the wild horses and burros as, at best, useless and, at worst, pests who destroy the range on the meager productivity of which they depend. Many wildlife managers view the wild horses and burros as undesirable because they cannot be hunted or because they are exotics who divert resources from native species or interfere with natural processes.

But there also are deep differences among those who consider themselves advocates for horses. For example many wild horse advocates ride, show, breed, and buy and sell horses, and their attitudes toward wild horses are strongly shaped by that experience. Some with this background hold fundamentally utilitarian attitudes and see wild horses as little more than domestic horses with certain exciting breed characteristics or developmental potential. Horse advocates with a strong utilitarian perspective tend to support aggressive management of wild horses, including removal of selected animals from the herds to attain certain color, conformation, behavioral, or breed standards (e.g., “Spanish”) in the wild population; breeding of adopted wild horses; and formation of “shadow” herds of domestic horses that match certain attributes of the wild population. Often they consider some herds to be intrinsically more valuable than others because of their genetic or phenotypic attributes. Other wild horse protectionists may take a position based on traditional humane philosophies, in which all wild horses—regardless of appearance, genetics, or behavior—are considered equally valuable, and breeding of adopted horses is discouraged, just as breeding of animals adopted from an animal shelter is discouraged. Under the humane perspective, wild horses are wild, but only up to a point: when necessary managers should intervene by providing feed and water, controlling the population, or carrying out euthaniasia of hopelessly sick or injured animals to assure the health and well-being of individual animals and prevent mass starvation. Yet another group of wild horse advocates takes the position that wild horses and burros are and should be treated as truly wild animals who are part of and subject to natural ecological processes. From this perspective flows a non-intervention philosophy and a strong hands-off approach to management, including an acceptance of suffering and death as a result of “natural” processes. When these diverse positions are applied to specific issues, controversy follows.

### Can Wild Horses Survive on Public Lands?

The BLM has made a number of improvements in its range management practices over the last five years. It has strengthened the scientific foundation of its horse and burro management by introducing population modeling into its herd management plans and directly monitoring genetic diversity in a number of populations (e.g., Singer and Schoenecker 2000). The BLM also is standardizing its range inventory methods and its processes for making land use decisions, both of which have varied widely from state to state and district to district, and have furnished ample opportunities for abuse (General Accounting Office [GAO] 1990; BLM 1997).

In addition the BLM has been funding research on wild horse contraception since the 1980s. The first trials were disastrous; scores of wild horses died and more suffered terribly, not because of the contraceptive agents under test (steroid hormone implants, some of which were effective), but because some subjects were misfitted with collars, while others were separated from their home ranges and died of dehydration (National Research Council 1991). In 1992 however the BLM began working with The Humane Society of the United States (HSUS) to support field trials using the porcine zona pellucida (PZP) vaccine; this work followed up on the initial successes of trials on Assateague Island National Seashore (ASIS), Maryland, carried out by Kirkpatrick, Turner, and Liu (Kirkpatrick, Liu, and Turner 1990; Kirkpatrick 1995; Turner et al. 1997). A decade of research since then has produced a one-year, one-shot PZP immunocontraceptive vaccine. While work continues to develop a longer-acting vaccine, the BLM also is carrying out extensive field testing and developing the policies and infrastructure necessary to begin widespread field application of the PZP vaccine (Turner et al. 2001, 2002). But public pressure will be required to assure that improved process and improved science lead to healthy herds of wild horses and burros.

After passage of the 1971 act, the BLM located and delineated 304 public lands “herd areas” which were known to support wild horses. Because they were “snapshots” of herd locations, it is unlikely that these herd areas fully circumscribed the areas used by the horses and burros. For a variety of reasons—some sensible, some dubious—the BLM chose to manage horses and burros on only 215 of these designated “herd management areas,” or HMAs; from the remainder, horses were removed permanently. As of 1998 the number of HMAs had dropped to 211, with 204 being the target goal for 2005 (BLM 2002, n.d.). Moreover fourteen HMAs did not support any wild horses or burros in 1998 (BLM n.d.). (Part of the reduction was caused by the transfer of land, including several burro HMAs, from the BLM to the National Park Service by the Califor-
nia Desert Protection Act of 1994.) Thus there has been a gradual rate-chet down of habitat available to wild horses and burros.

Whether wild horse and burro numbers have increased or declined historically is debatable. According to BLM figures, the number of wild horses reported in the year 2000 (43,629) closely matches the 42,666 wild horses reported in 1974; burro numbers have clearly declined, from 14,374 reported in 1974 to 4,995 reported in the year 2000 (BLM 1996, BLM 2000). However the reliability of BLM numbers has often been questioned. In fiscal year 2001, the BLM began implementing a five-year plan (“The Strategy to Achieve Healthy Rangelands and Viable Herds”) to reduce the number of wild horses and burros on the range to approximately 27,000, on 204 HMAs. This is a cause for concern, not just because of the total reduction in numbers, but also because the reduction would set average herd size at just over 130, which suggests that many HMAs will contain herds that are too small to be genetically and demographically viable in the long term (Singer and Schoenecker 2000). In 1996 there were almost sixty HMAs with target populations at fifty or below (BLM 1996).

Ultimately however what will determine whether wild horses and burros survive is the condition of the range on which they depend. A century and a half of overgrazing public lands by livestock means that horses and burros compete with livestock and wildlife for a very slender resource base (GAO 1988, 1990). Deterioration of the public lands is reflected not only in the impetus to further reduce horse numbers, but also in the decline in BLM-licensed grazing allocations for livestock. In Nevada, for example, where about half of all federally protected wild horses live, BLM grazing allotments for livestock declined from 3.13 million AUMs (animal-unit-months, roughly the amount of forage a cow eats in a month) in 1960 to 2.10 million AUMs at the time the act was passed in 1971, then to a mere 1.7 million AUMs in 2001, a decline of 63 percent over 40 years (BLM 2001 and previous). Horses are not principally to blame for the deterioration of public lands. Over the 270 million acres of federal land grazed by livestock, livestock outnumber horses on the range by approximately a hundred to one, and most public lands do not contain wild horses (GAO 1990). But regardless of where the blame lies, the land is poor, and the margin of subsistence vanishes rapidly when it is stressed further by fire or drought. Year after year the BLM carries out unplanned “emergency gathers” of horses and burros to head off catastrophic mortality due to dehydration or starvation. In many areas horses and cattle alike will need to be removed to allow the land to recover its productivity and resilience.

The Adopt-a-Horse Program

Since the mid-1970s, the BLM has relied principally on the Adopt-a-Horse and Adopt-a-Burro programs to dispose of surplus animals removed from the public lands. Roughly three to five years in a given herd management area, horses or burros are rounded up (often with the use of helicopters) and sent through a system of corrals in the field, after which some are returned to the range and others designated for adoption. Some adoptions occur on site, but most animals enter an “adoption pipeline” in which they may be held in corrals or pastures for varying lengths of time before being sent out to satellite locations for adoption. The horses remain government property for at least one year, after which title may pass to the adopter (16 U.S.C. §1333 (c)). This program, which adopted out 185,326 horses and burros between 1972 and 2001 (BLM 2001), is the BLM’s best showpiece—and a destructive and unshakeable addiction. Scores of favorable articles tell heartwarming stories about adoption successes, humanizing what usually is perceived as an impersonal and uncaring federal colossus. But the good news has often been shadowed by frustration and horror. Throughout its existence the adoption program has been plagued by accounts of failed adoptions (many wild horses require extra patience and training), and of wild horses diverted for exploitation and sale-for-slaughter by duplicitous “adopters.”

Again the BLM has taken great strides in improving the efficiency and humaneness of the adoption program. Roundups have been increasingly professionalized, making them safer for horse and wrangler alike. Tracking of animals within the adoption pipeline has been improved dramatically, with systems in place to identify animals who have been shipped to multiple adoptions without success. Geling of stallions is strongly encouraged, and horses in increasing numbers receive some training prior to adoption. Through a series of cooperative agreements, the BLM has vastly expanded its ability to monitor adopted horses and provide mentors to new adopters. The BLM has even established cooperative agreements with U.S. slaughterhouses so that the BLM can be notified when horses bearing the distinctive BLM freeze marks are identified on site. Nevertheless the BLM’s adoption pipeline typically adds 5,000–8,000 horses and burros each year to an already overcrowded domestic population. The result is that some horses, wild or otherwise, will be neglected or sold to slaughter.

To a large extent, the adoption program drives the whole wild horse and burro program. In fiscal year 2000 the operations budget for off-the-range management—capturing, housing, caring for, feeding, transporting, and adopting “surplus” horses and burros—was twelve times the size of the budget for monitoring the range and inventorying horses (BLM 1999). Under the 2001–2005 “Strategy” plan, the BLM expanded its capacity so as to hold approximately 20,000 horses and burros in short-term and long-term holding facilities; recent accounts suggest that capacity
has been filled (BLM 2002, Smith 2002). At this writing approximately half of the program budget is being spent maintaining these horses (J. Fend, BLM, personal communication, July 2002).

The adoption habit leaves precious few resources for monitoring or improving the condition of the horses’ rangelands or observing the wild horses themselves—which is, after all, what the whole program is supposed to be about. The adoption program also warps management goals in other ways: it probably is not a coincidence that national wild horse population targets historically have been set at levels that would produce surpluses matching the number that the BLM believes it can adopt out (e.g., BLM 1992).

The survival of wild horses and burros in the western United States requires a commitment from the BLM and the public to restore the condition of the land and to assure wild horses and burros their fair share of that land. The BLM remains plagued by its multiple use mandate, a legal requirement to balance the needs of livestock, recreational users, resource extractors, wildlife, and wild horses and burros. That balance ultimately depends on who weighs in most heavily in the land use planning process. In the past livestock growers have brought the most weight to bear, as they have the advantage of local access to government and also are suffering deeply, along with their animals, from the deterioration of the land. By legal action and public pressure, horse advocates must assure that the land is restored, and that there are enough horses and burros, in enough places, to guarantee their survival in perpetuity.

To ensure the welfare of its adoptees (as well as strengthen its on-the-range management), the BLM must reduce the number of surplus horses and burros coming off the range. If adoption demand determines population levels on the range, then the BLM will always be under pressure to reduce wild horse and burro populations to levels that threaten their long-term survival—unless population and reproduction can be disconnected. At Assateague Island National Seashore, Maryland, the National Park Service (working with The HSUS) has led the way in humane and sensitive management of wild horses. Since 1995 ASIS has been balancing the needs of horses with the needs of their fragile barrier island environment through an innovative horse immunocontraception program (National Park Service 1995). This program has stabilized the resident wild horse population without the need for euthanasia, roundups, adoptions, or direct handling of the animals. A contraception program, designed to minimize effects on social structure, behavior, and genetics, probably is the BLM’s best chance to sustain adequate numbers on the range while reducing the number of animals entering the adoption program. After more than fifteen years of research into horse contraception, the BLM is close to having and using that tool, and it should not falter now.

Literature Cited


