



Effects of an Invasive Species: Feral Horses and Burros

Feral horses (*Equus caballus*) and burros (*E. asinus*) are **invasive species** in North America.¹ Invasive species are among the most widespread and serious threats to the integrity of native wildlife populations because they invade and degrade native ecosystems.²

Sustainable management of feral horses and burros, though, has become a complicated and often controversial issue. As an iconic image of the American West, many people perceive these animals as a natural component of the environment, failing to recognize the damage they cause to native ecosystems.²

Faced with heightened public concern—and a complex network of legal directives—agency professionals charged with managing expanding feral horse and burro populations have relatively few options to control the resulting **overpopulation**.³ This causes economic and ecological harm while undermining the role of science in making informed resource decisions.



Environmental damage: Feral horses effect native ecosystems by overgrazing vegetation and compacting soil (Credit: NHBRCM).⁷

What are Invasive Species?

Invasive species are established plant or animal species that causes **direct or indirect economic or environmental harm** within an ecosystem, or will likely cause such harm if introduced to an ecosystem in which it is non-indigenous as determined through objective, scientific risk assessment tools and analyses.⁴

—What about “Wild” Horses and Burros?—

All free-roaming “wild” horses and burros in North America are **feral descendants** of domesticated animals from Eurasia and Africa respectively.⁵ As feral animals, these horses and burros have undergone many generations of selective breeding and **do not play a functional role in our existing North American ecosystems**.⁵

Furthermore, with no natural predators—and if left unmanaged—horse and burro populations can increase rapidly (**doubling in size every 4 to 5 years**), thus amplifying their negative effects on native habitats and wildlife.⁶

Impacts of Feral Horses and Burros on Native Wildlife & Habitats⁷

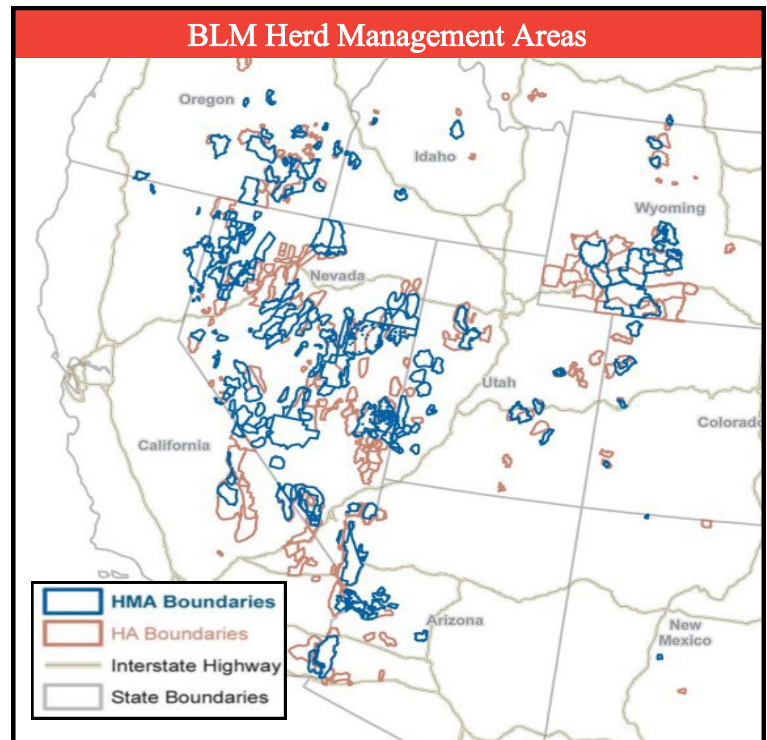
- Feral herds of horses and burros damage landscapes by **trampling vegetation, overgrazing, and compacting soil**. The overall impact of feral horses and burros varies depending on the intensity and duration of use, timing, and health of an area; but where feral horse and burro densities are high, the impacts can be substantial.
- Areas occupied by feral horses tend to have **fewer plant species, less plant cover, and more invasive plants**. Occupied sites typically also have less abundant small mammal and reptile populations.
- In addition to habitat destruction, horses and burros **exhibit aggressive behavior** around watering holes and grazing sites that effectively excludes native elk and bighorn sheep from preferred foraging areas.

Management of Feral Horses and Burros in the U.S.

Feral horses and burros roam freely across Western North America and in many areas along the Atlantic Coast.² Because these species are exotic, few policies and laws deal directly with their control; with the exception of the **Wild Free-Roaming Horses and Burros Act of 1971**.⁸ This law charges the Bureau of Land Management (BLM) and U.S. Forest Service with protecting certain populations of feral horses and burros in the U.S. as “**components of public lands;**” to be managed in a manner that is designed to achieve and maintain a “**thriving natural ecological balance.**”⁸

To comply with the 1971 Act, BLM determines an **Appropriate Management Level (AML)**. An AML estimates the optimum number of wild horses and burros that can graze without causing damage to the range.⁹ The current range-wide AML is set at 26,715 animals.¹⁰ As of March 2016, BLM estimates that on-range wild horse and burro populations exceed 67,000 animals—more than **two-and-a-half times greater than AML**.¹⁰

In the past, removal of excess horses and burros through gathers helped maintain the ecological health of rangelands. However, sharp declines in adoption rates, combined with restrictions on the use of humane euthanasia and sale of gathered animals, have led to over **45,000 horses and burros** living in off-range holding facilities at a cost of approximately **\$50 million per year**.¹⁰ With limits to the amount of horses and burros off-range holding facilities can accommodate, BLM now only removes roughly as many horses and burros as can be adopted or replaced in holding (approximately 2,500–3,000 animals per year), thus exacerbating the existing on-range overpopulation.³



BLM Herd Areas (HA) and Herd Management Areas (HMA). There are over 40,000 excess horses and burros on BLM HMAs (Credit: BLM).



Wild horse gather in Nevada (Credit:BLM).

Effect on Wildlife Professionals

Laws and policies that mandate the continued presence of an invasive species unduly affect the ability of wildlife professionals to effectively manage and promote healthy native wildlife populations and habitats. They divert resources—both human and financial—from the management of native species, undermine the principles of wildlife biology/conservation, and harm the public credibility of wildlife biologists.

As of Fiscal Year 2015, BLM has spent over **\$1,047,000,000** since 1981 trying to manage wild horse and burro populations with minimal success: On-range horse and burro populations are expected to double in less than 5 years and the agency expects off-range holding costs—for those horses already in holding—to exceed \$1 billion over the next 20 years.¹¹

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