

# New National Academy of Sciences Report

## *Using Science to Improve the BLM Wild Horse and Burro Program: A Way Forward*

By Kara Laney

A new report from the National Research Council of the National Academy of Sciences finds that the Bureau of Land Management (BLM) could implement constructive changes to its management of free-ranging horses and burros on federal public lands in the western United States. The report, *Using Science to Improve the BLM Wild Horse and Burro Program: A Way Forward*,<sup>1</sup> reviews the science underpinning BLM’s Wild Horse and Burro Program and identifies tools that already exist that could be used to better manage horses and burros on healthy ecosystems, enhance public engagement and confidence, and make the program more financially sustainable.

The report is the completion of a study commissioned by BLM in part to respond to a Congressional request for a “new comprehensive long-term plan and policy” for the Wild Horse and Burro Program. The National Research Council assembled a committee of 14 scientists with expertise in range ecology, reproductive physiology, ecosystems modeling, genetics, population demography, equine physiology, and behavioral ecology to conduct an independent evaluation of the science, methodology, and technical decision-making approaches to managing free-ranging horses and burros on the range.

The committee determined that most free-ranging horse populations are growing at 15% to 20% a year, meaning these populations could double in 4 years and triple in 6 years. With no intervention by BLM, the horse population will increase to the point of self-limitation, where both degradation of the land and high rates of horse mortality will occur due to inadequate forage and water. However, BLM’s current strategy to curb populations by permanently removing horses from the range each year perpetuates high population growth rates by maintaining the number of animals at levels below the carrying capacity of the land, protecting the rangeland and the horse population in the short term but exacerbating the long-term problem.

To manage horse populations without periodic removals, widespread and consistent application of fertility control

would be required. Of the many fertility-control approaches reviewed, three methods—porcine zona pellucida and Gona-Con for mares and chemical vasectomy for stallions—were identified as most effective in terms of the delivery method, availability, efficacy, duration of effect, and potential physical and behavioral side effects.

The committee also strongly recommended that BLM improve and standardize its methodology used to estimate population size, stressing the importance of accurate counts as the basis for all management strategies. A large body of scientific literature suggests that the proportion of large mammals missed in current surveys ranges from 10% to 50%.

Additionally, an examination of the genetics and health of population groups as well as of the rangelands they occupy can be used to assure that both the animal populations and the ecosystem are being appropriately managed. Developing an iterative process whereby public participants could engage with BLM scientists on data gathering and assessment would increase the transparency, quality, and acceptance of BLM’s decision-making process.



Photo courtesy of the Bureau of Land Management.

Continuing “business as usual” practices to control herd population size on the range—that is, removing horses permanently from the rangelands to long-term holding facilities—will be expensive for BLM and unpopular with Congress and some segments of the public. Compelling evidence exists that there are more horses and burros on public rangelands than reported at the national level and that population growth rates are high. If populations are not actively managed, the abundance of horses and burros on public rangelands will increase until animals face food limitation. They would then affect forage and water, reducing them to levels detrimental for themselves as well as for all other animals on shared rangelands.

Tools already exist for BLM to address many of these challenges. Available improvements to current management practices include better methods for estimating population size, more effective use of modeling to predict the results of management actions, greater use of fertility-control treatments, application of genetics information to herd management, and improved methods for measuring the amount of available forage. Addressing those issues with science-based management approaches that are applied consistently and communicated transparently to the public could help increase public confidence in the Wild Horse and Burro Program.

## References

1. NATIONAL RESEARCH COUNCIL. 2013. Using science to improve the BLM Wild Horse and Burro Program: a way forward. Washington, DC, USA: The National Academies Press. 630 p. Available at: [http://www.nap.edu/catalog.php?record\\_id=13511](http://www.nap.edu/catalog.php?record_id=13511). Accessed 30 June 2013.

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*Rangelands* 35(4):26–27

doi: 10.2111/RANGELANDS-D-13-00043.1

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