

Submission
No 105

INQUIRY INTO PROPOSED AERIAL SHOOTING OF BRUMBIES IN KOSCIUSZKO NATIONAL PARK

Organisation: Sentient, The Veterinary Institute of Animal Ethics

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Inquiry into the proposed aerial shooting of brumbies in Kosciuszko National Park: Submission by Sentient

Introduction

I am writing this submission on behalf of Sentient, an independent Australian veterinary association dedicated to animal welfare advocacy based on the ethical implications of animal sentience and the findings of animal welfare science. Our members are represented in academia, private practice (companion, equine and large animals), non-government, government and industry settings, with expertise in many fields including animal welfare, animal behaviour, clinical medicine, zoo and wildlife medicine, epidemiology and the use of animals in teaching and research. A number are qualified specialists in particular disciplines or have extensive experience within industries such as live export, horse racing and greyhound racing. Sentient has presented at international and national conferences, published papers, contributed numerous submissions to state and federal government inquiries, and provided evidence at parliamentary public hearings. We also host final year veterinary science students for Public, Industry and Community placements in animal welfare advocacy. Sentient is registered with the Australian Charities and Not-for-profits Commission.

Wild horses exist in the Kosciuszko National Park and other alpine areas of Australia because of human intervention. On ethical grounds, we therefore have a responsibility to ensure their welfare is a priority when developing strategies to manage their populations. Sentient opposes aerial shooting of wild horses due to the known severe negative impacts on their welfare and we urge that the NSW Government resists ongoing pressure from environmentalists to adopt this approach.

We wish to address the following terms of reference to assist in this inquiry:

(b) the justification for proposed aerial shooting, giving consideration to urgency and the accuracy of the estimated brumby population in Kosciuszko National Park

In our submission to Amending the Kosciuszko National Park Wild Horse Heritage Management Plan, Sentient has already opposed the following proposed amendment to the Kosciuszko National Park Wild Horse Heritage Management Plan 2021 (the plan), which was prepared and adopted under the Kosciuszko Wild Horse Heritage Act:

Amendment 5: Wild horse control methods - The inclusion of aerial shooting in the list of control methods available for use in controlling wild horses in the park

In our view it is unacceptable that the plan has been amended to include a method of wild horse control that cannot be employed without severely adverse welfare impacts on the horses. This amendment is also dismissive of public opinion and is not supported by scientific evidence such as trials that demonstrate positive animal welfare outcomes.

Sentient disputes the claim that: “The ability to conduct aerial shooting is essential if the population is to be reduced to 3,000 wild horses by 30 June 2027, which is a legal obligation under the Act and the plan¹.”

Firstly, we have seen no evidence to establish the soundness of the current methodology of estimating the number of wild horses, and there have been serious allegations that the methodology is flawed.² Furthermore, it is not acceptable to introduce aerial shooting as a desperate attempt to catch up on a proposed timeline that is now considered at risk due to delays in implementing management since the Kosciuszko National Park Wild Horse Heritage Act 2018.

The Scientific and Community Advisory Panels did not commence until November 2019, its final advisory report was submitted in September 2020 and the Kosciuszko National Park Wild Horse Heritage Management Plan was released in November 2021, with on-ground implementation initiated in February 2022. This means there has been little over a year to implement all the methods of management and develop Standard Operating Procedures, so it is not surprising that this has not yet been achieved. Our understanding is that only trapping and removal and, more recently, ground shooting, have been implemented but there has been no feedback to the public about the welfare impacts of these or estimates of their likely success in population control. Furthermore, there are proposed methods that have not even been trialled such as killing in yards with different methods (which we would only support on the grounds of genuine euthanasia) and aerial mustering.

There is no evidence upon which to base the assumption that aerial shooting is essential to meet the 2027 timeline for reducing the wild horse population because not all management methods have been given a trial and some have only just been implemented. This is not just poor management - it is very poor science.

(e) the animal welfare concerns associated with aerial shooting

We completely dispute the claim that:

¹ <https://www.environment.nsw.gov.au/-/media/OEH/Corporate-Site/Documents/Animals-and-plants/Pests-and-weeds/Kosciuszko-wild-horses/kosciuszko-national-park-wild-horse-heritage-management-plan-amending-factsheet-230298.pdf>

² <https://regionriverina.com.au/call-for-npws-to-stop-brumby-cull-in-face-of-flawed-population-count/37704/>

“Aerial shooting of wild horses would be carried out to the highest welfare standards, including a standard operating procedure informed by independent advice and which involves ongoing auditing by animal welfare experts”³. (p.3)

This is inherently impossible. The RSPCA defines humane killing as: ‘when an animal is either killed instantly or rendered insensible until death ensues, without pain, suffering or distress’.⁴ This is what we would expect of ‘the highest welfare standards.’ It is also what society expects, whether animals are being euthanased to end their suffering, or killed for human use, environmental management or disease control.

Aerial shooting cannot achieve this because accurate head shots from the air cannot be guaranteed; it is most likely that horses will be shot in the chest or other parts of the body and the public must be made aware of this reality – aerial shooting does not cause horses to suddenly drop to the ground, instantly insensible to any pain. Their death can be prolonged, with immense suffering. Chest shots result in haemorrhage, which means horses will bleed to death, and even a bullet lodged in the heart will not achieve instantaneous insensibility. The public should also be aware of what horses may experience in this situation – pain (due to penetration of muscle, rib cage and nerves), weakness, breathlessness due to hypovolaemia (reduced blood volume and oxygen carrying capacity) and of course, terror until loss of consciousness ensues.

We also dispute the following claim from the NSW National Parks and Wildlife Service Fact Sheet⁵ that:

“best practice aerial shooting would deliver animal welfare outcomes comparable to or better than other available control methods”.

This statement is based on speculation and is an attempt to persuade without supporting evidence. There have been no studies directly comparing welfare outcomes of aerial shooting to the range of other control methods, many of which have the potential for much higher welfare outcomes and should be trialled in situ. For example, passive trapping and transportation has undergone welfare assessments, including auditing by an independent veterinarian, that show the welfare impacts are longer in duration than shooting but very mild in intensity when performed following best practice standard operating procedures, which are practically achievable.⁶ These positive welfare outcomes were attributed to factors such as not setting targets or attempting to

³ <https://www.environment.nsw.gov.au/-/media/OEH/Corporate-Site/Documents/Animals-and-plants/Pests-and-weeds/Kosciuszko-wild-horses/kosciuszko-national-park-wild-horse-heritage-management-plan-draft-amendment-230261.pdf>

⁴ <https://kb.rspca.org.au/knowledge-base/what-does-the-term-humane-killing-or-humane-slaughter-mean/>

⁵ <https://www.environment.nsw.gov.au/-/media/OEH/Corporate-Site/Documents/Animals-and-plants/Pests-and-weeds/Kosciuszko-wild-horses/kosciuszko-national-park-wild-horse-heritage-management-plan-amending-factsheet-230298.pdf>

⁶ Evaluation of the implementation of the Kosciuszko National Park Wild Horse Heritage Management Plan (2021) 29 November 2022. State of NSW and the Department of Planning and Environment.

catch all horses at once and staff who were highly skilled in low stress handling, which allowed horses to habituate to both people and procedures. In contrast, aerial shooting potentially poses the worst animal welfare outcomes of all methods of control, as outlined above, and the negative impacts can be of severe intensity. Furthermore, the use of the term 'best practice' is highly misleading. It gives the public a false reassurance that aerial shooting will not cause suffering to wild horses and may discourage critical thinking about how this would actually be achieved.

We submit that it is highly unlikely that a 'best practice scenario' will be routinely adopted. Our concerns are supported by research findings that the most important variable in whether a horse was killed instantaneously or not was the skill of the shooter. The aerial shooting study conducted in Central Australia by Hampton et al 2017⁷ found that under study conditions, 1% of horses were found alive and wounded, and 3% of horses were not shot in the cranium, neck or even the thorax, so we may expect these figures to be higher under field conditions. The data showed that 37% of horses were not killed immediately. This may be partly due to only 35% of horses being head shot. The other 63% of horses were considered to have died instantaneously because they were observed from the air to be immobile, but this does not constitute death, so this figure is a likely overestimate. In any case, we would NOT accept a 37% rate of non-instantaneous death of animals at abattoirs, and nor should we accept this in any program of environmental management. Furthermore, we are not aware of any other method of population control with such a high rate of non-instantaneous death or non-fatal wounding and urge the committee to consider carefully how the public would view such a scenario.

We cannot emphasis strongly enough that 'best practice aerial shooting', which means precise headshots producing instantaneous death, is not only impossible to guarantee but has never actually been documented.

When assessing the welfare impacts of any form of population control, we must also examine the entire experience for the animal, whatever the duration. Wild horses do not naturally gallop *en masse* at full speed for minutes on end. Even if aerial shooting achieves an instantaneous death for a minority of horses, they are already in a heightened state of fear and stress at the point of death due to the preceding high-speed helicopter chase. Chase times (of 1 to 2 minutes) and distance are equivalent to commercial horse flat races, where it is well recognised that exhaustion, breathlessness, heat stroke, muscle fatigue and injury are significant welfare concerns for young Thoroughbreds, and this is despite being highly trained in racing and running on smooth, familiar surfaces. It is horrifying to imagine the impact of a forced chase at full speed through rugged terrain on wild horses of all ages (including elderly horses, pregnant mares and foals) and varying levels of health and fitness. Based on the Five Domains Model of animal welfare, extreme fear and panic are inevitable impacts of such a forced chase. We submit that even in the unlikely event that immediate death is achieved with an initial head shot, aerial shooting is inhumane, regardless of

⁷ Hampton JO, Edwards GP, Cowled BD et al (2017) Assessment of animal welfare for helicopter shooting of feral horses. *Wildlife Research*, 44:97-105.

the length of time horses are pursued, because they are not spared from pain, suffering or distress.

Introducing aerial culling into the management plan defies the advice animal welfare experts have previously provided to the Government. The Scientific Advisory Panel (SAP) report 2020⁸ advised that the 2021 Management Plan adheres to the 'International Consensus Principles for Ethical Wildlife Control'⁹. These principles specify that management methods must be justifiable, socially acceptable, systematically planned and 'cause the least animal welfare harms to the least number of animals'. They also specify that identifying such management methods requires systematic scientific evaluation of the possible animal welfare harms. The SAP gave the following caution for lethal control methods:

"...the worst welfare outcomes are likely to be those where death is associated with more extreme or prolonged anxiety/fear and/or pain." (p. 14)

This caution should be enough to veto even the consideration of aerial shooting. The SAP only recommended ground or aerial shooting "in very specific circumstances, and only if preliminary trials demonstrated better animal welfare outcomes than achieved with other methods that require prior capture" (p. 17). We are not aware of any such clinical trials or their findings. There is no evidence that aerial shooting has demonstrated superior animal welfare outcomes so the amendment to the plan to introduce this method is unscientific and at odds with previous advice to the Government. In any case, the SAP's recommendation regarding ground and aerial shooting without prior capture was:

- Shooting methods may be particularly preferable for locations where horse density, habitat, and terrain are not favourable for mustering or trapping of horses, and removing from the park.
- The SAP recommend trialling of both methods under strict conditions to determine animal welfare outcomes, with the ongoing method used to be that with the least negative impacts on animal welfare, alongside consideration of other variables as outlined above." (pp 17-18)

At no time did this advisory panel recommend the routine introduction of aerial shooting into the management plan, which is now suddenly being proposed. Nor did they approve its use in the plan for any circumstances without documentation of a very low likelihood of significant animal welfare impacts or without the use of extremely experienced shooters using head shots only (p. 51).

⁸ Kosciuszko Wild Horse Scientific Advisory Panel (SAP). Final Report of the Kosciuszko Wild Horse Scientific Advisory Panel Advice to assist in preparation of the Kosciuszko National Park 2020 Wild Horse Management Plan, September 2020 <https://www.environment.nsw.gov.au/research-and-publications/publications-search/kosciuszko-wild-horse-scientific-advisory-panel-final-report>

⁹ Dubois S. et al (2017). International consensus principles for ethical wildlife control. Conservation Biology, Volume 31, No. 4, 753–760. <https://conbio.onlinelibrary.wiley.com/doi/10.1111/cobi.12896>

This is consistent with the previous advice to the Government by the Independent Technical Reference Group (ITRG)'s 2016 report¹⁰. The ITRG noted that aerial shooting “is an inherently imprecise technique due to the shooting of a moving target from a moving platform.” Using a relative humaneness assessment matrix, their theoretical assessment of aerial shooting for scenario 2, where horses are chased for longer than 5 minutes, are not effectively rendered insensible with the first shot and are shot again resulting in death, was of Severe to Extreme intensity of suffering and between Very Rapid to Minutes for duration of suffering. The ITRG only considered aerial shooting for scenario 1, the ‘best-case’ scenario whereby horses are chased for less than one minute, are rendered insensible with the first shot and do not recover consciousness prior to death. Furthermore, this best-case scenario was only considered acceptable in specific situations, with the stipulation that head shots were to be used.

The only published evidence we have suggests this best-case scenario is the least likely for aerial shooting. The Hampton study found a range of chase times, with 'mid case' scenarios being common and a median chase time of over 1 minute. Unless demonstrated otherwise, it is unlikely that the requirements specified by Government appointed animal welfare experts (the ITRG and SAP) could be consistently achieved with aerial shooting operations, leaving the majority of horses to experience severe or extreme suffering, an unconscionable outcome.

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¹⁰ ITRG (2016) Final report of the Independent Technical Reference Group: Supplementary to the Kosciuszko National Park Wild Horse Management Plan. Report by the Independent Technical Reference Group to the Office of Environment and Heritage NSW, Sydney.