www.australianbrumbyalliance.org.au
ABN : 90784718191

22-January-2024

Inquiry into the proposed aerial shooting of Brumbies in Kosciuszko National Park Hearing Monday 18 December 2023

Taken on notice/supplementary questions to the ABA - replies

This ABA reply to "Taken on Novice"/supplementary questions raised during the inquiry hearing on Monday 18 December 2023 is addressed under the following headings;

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1. Hon. ROBERT BORSAK: What is that number for the park, then, based on the number of dung heaps per Berman 2023— Could you take that on notice.

ABA reply Introduction

Berman et. al 2023 promotes management based on impact, not numbers.

- The aim is to reduce direct impact to a level, that minimises or removed any detrimental indirect horse impact.
- The research provides an initial target density for areas preferred by horses (food shelter, water.
- This target density is for the horse's favoured habitat, treeless drainage lines. All other habitats will have lower densities) because they are less attractive to horse.

- Horse numbers are kept within their target density by passive trapping and fertility control. Once populations are kept steady, horses have no reason to move outside their preferred habitat zone.

The Hon. ROBERT BORSAK: What is that number for the park, then, based on the number of dung heaps per—

This work was not designed to determine the number of horses in the whole Park. What the study provides is a target density of horses where direct horse impact is undetectable. In management zones where horses are to be retained, population control will aim to ensure the density in the treeless drainage line (grassy) habitat is below nine horses per square km. Horses move across most habitats within their home range/retention zone. To determine the total number of horses in the whole Park, density estimates for each habitat area in the park would need to be determined. However the Koscuiszko management plan will remove horses outside specified zones, meaning impact densities are irrelevant for non-horse zones.

The Hon. ROBERT BORSAK: So you don't have a safe number or a safe level that you're advocating for?

We chose the treeless (grassy) drainage line habitat because it is horse 'favoured' habitat so contains the highest density of horses. If the density of horses is below the density target within treeless drainage lines, then the surrounding habitats (i.e. less horse favoured) will have densities below the target. The management strategy would involve reducing the population within the horse retention management zone until their density level within it's treeless drainage lines (horse favoured) is under 9 per square km; below which direct horse impact will be very difficult to detect, likewise for surrounding less horse favoured habitat.

The Hon. ROBERT BORSAK: Yes, but the whole park is the management area, isn't it?

There are various management zones within the Park. Some are zoned for the retention of horses for heritage reasons. Other management zones will have all horses removed, and zones with no horses are kept horse free. The ABA's reply relates to horse retention zones.

The Hon. ROBERT BORSAK: But horses move.

Within retention zones, horses will be unevenly distributed and will concentrate in areas most suitable for their survival of feed, shelter and water. The highest density will be in treeless drainage line (grassy flats). Elsewhere, the density will be much less and will depend on the availability of survival needs. Horses in favoured feed areas have no reason to move.

Horses are reluctant to move into areas they don't know. They have a home range and will stay within that area if they have sufficient mates, shelter, food and water. At times young stallions may search for mares outside their areas, but if they move into horse free zones, they will be removed under the Kosciuszko management plan.

Maintaining the horse density below the no detectable impact target density, means that horses are fed and watered, native species are *not* negatively impacted, and so horses are not likely to move out of the retention management zones. Numbers rising above the target density level can be managed by fertility control and passive trapping.

This means that horses do not have to be killed, native species are *not* impacted and park managers can meet their regulatory responsibilities without being distracted by conflict.

The Hon. ROBERT BORSAK concern that Berman's 2023 study may be used to extrapolate total horse numbers to something like 63,000 to 70,000 horses;

Nine horses per kilometre is the target density for treeless (grassy) drainage lines to help managers remove negative impact in specified horse retention areas. There is no need to calculate the densities in all other park habitats because the Kosciuszko management plan states the maximum number of horses allowed and precisely where those horses can live. Any horses found outside the horse retention areas are removed under that same plan.

2. Additional ABA concerns raised in Hearing day 18-Jan-23

2a. RSPCA claim no foaling season for wild horses, stallions just have sex as they feel

Andrea Harvey is a vet with specialised understanding of Snowy Mountains wild horse behaviour. Andrea, at our request, has provided the following;

"The oestrous cycle of mares is determined predominantly by *daylight length* thus they cycle typically throughout late spring, summer and early autumn.

The gestation period is approximately 11 months, therefore most foals will be born between September and March. Although the foaling season can be quite prolonged, typically most foals in Kosciuszko National Park (KNP) will be born between November and February.

Conception is also dependent on the nutritional status of mares, and so if mares are in poor condition coming out of winter, they may not conceive until late summer or early autumn when their nutritional status is likely to be better. Occasionally mares will also continue to cycle into winter, and if so this can result in foals being born in later autumn.'

There is definitely a foaling season, but as per above it can be quite wide. It is likely to be narrower in areas and years when the brumbies do well over winter as they will start cycling and be more fertile earlier, than in poorer years/areas. It will also depend on whether they had a foal the previous year and when that was. So in other words there will be some variation year to year, and also *throughout different areas of the park*."

The ABA strongly refutes the RSPCA-NSW claim that there is no foaling season. The ABA and Andrea define foaling season as the period when 80% of foals are born, whereas the RSPCA NSW refer to any time they saw a foal, based on their assumption that "stallions have sex as they feel." In reality, a mare is *only* receptive to letting a stallion mount her for sex when she is cycling, which is dependent on daylight length, and good feed is around, such as in spring.

Cycling mares have also been seen rejecting a wild stallion if, as with humans, that Mare dislikes that Stallion.

The sentient behaviours of wild mares and stallions are often over looked, but they have personal preferences as well, including times they might sneak off to a neighbouring stallion they prefer for a flirt and sex.

While the RSPCA say they have seen foals in all times of the year, we would be interested to see any photos of these foals as wild horse foals are typically slower than domestic horses to grow in size and can suckle Mum to when the next foal is born. The fact remains that 80% of KNP foals are born between November and February, which is what ABA defines as foaling season in KNP, and around the same period NPWS used to follow as the foaling season.

Foaling statistics from ABA member Colleen O'Brien Victorian Brumby Ass. Is consistent with Andreas's position. Mares not heavily in foal trapped & transport to Rehoming facility and foaling post arrival during the years 2011 to 2023.

Feb	1
Aug	4
Sept	5
Oct	19
Nov	9
Dec	3

While trapping and transport to a strange place may have shortened the mare's pregnancy and caused her foal to be born earlier than if such disruption had not occurred, these results show a preference for October and November. Gestation times may well have been shorter following stress, which is consistent with Andrea Harvey's foaling season information.

2b. RSPCA aerial shooting inconsistency

The RSPCAs own knowledge base article on feral horse management states that head shots should be used, and the article also refers to the same recommendations provided by the ITRG and the more recent Scientific Advisory Panel.

https://kb.rspca.org.au/wp-content/uploads/2023/05/2023-04-27-Impacts-and-management-of-feral-horses-Austr-Alps-RSPCA-SUBMISSION.pdf

1. Yet, in this trial, 98% of horses were shot in the chest, and the RPSCA report states that no adverse welfare impacts were observed. This is at odds with the information provided in the RSPCA knowledgebase article, can you explain this?

2. The RSPCA knowledgebase article also highlights that pursuit time has important animal welfare impacts. In this trial median time for helicopter pursuit was 84 sec, which is not a dissimilar time to a thoroughbred flat race where potential welfare impacts of injuries, exhaustion and heat stress are well recognised. In the case of an aerial chase, the feral horse are running because they have extreme fear of being chased by the helicopter. Yet, RSPCA stated that no adverse welfare impacts were observed – how can you explain this?

2c. No proof of threatened species recover after horse shoots, just assumptions that horse grazing, foot prints, dung harm native species.

The Government and national park staff in NSW and Victoria do not know if their claim that killing horses is needed to "save" native species because these threatened species are never counted to see if numbers increase after killing horses. Instead, Government, parks and environmental lobbyists simple assume that what they see as impacts is causing problems.

The ABA urges this Federal Senate Inquiry into horse management to strongly recommend the instigation of annual counts of “at risk” threatened species and repeat an annual count so that population trends of special threatened species can be directly monitored in reality. This will at least show whether killing horses allows native species to recover, or not.

This is normal process in responsible scientific circles: You have an assumption, you trial an action, you check to see if it's helped, or not, the species you're trying to help. This is never done. For brumby advocates, which we are, this is horrifying: to think that all these horses are being shot—inhumanely, in our view—when there's no on-ground evidence to show the numbers have improved because of it.

The total lack of capacity to monitor threatened species actual on-ground numbers was first highlighted by the Victorian Auditor General in its report Protecting Victoria's Biodiversity October 2021 tabled to Victoria’s Parliament in 2021. But, still no threatened species actual count numbers are reco4ded, so our inability to monitor count data trends to learn what programs increase numbers and which programs do not. Quotes from the report include;

- DELWP/Parks Victoria (also NPWS) cannot demonstrate if, or how well, it is halting further decline in Victoria's threatened species populations.
- scientific rigour—the collection, analysis and use of data for its current species choices is not rigorous, and decisions to prioritise and continue funding are not based on the best available evidence.
- Much of the data used in models is old and likely outdated, and has some critical gaps. This raises questions about the reliability of the modelled outputs and the decisions they support.
- Without targeted on-ground monitoring programs to validate key predictions, they can only be viewed as modelled assumptions.
- ABA: so wild horses are killed for no robust scientific reason, just assumptions!

The NPWS Scientific Advisory Panel (SAP) recommend regular on-ground monitoring of threatened species and impacts directly due to horses in their report. But, NPWS have not followed through this recommendation to our knowledge, nor it seem, are they planning to monitor on-ground threatened species counts. It is time that NPWS stop just relying on the assumption that hoof prints, short green grass and dung are so harmful that horse must be killed to reverse the harm, which we strongly reject for sustainable horse number.

2d. ABA Rehoming Does Work

Rehoming does work provided run by skilled, pragmatic volunteers who should be regulated as with other treating professions. There sadly have been cases where rehomer/sanctuaries have over-reached, but establishing strong guidelines, regulations, mentoring and support will help to minimise this.

Rehomed horses have been successfully adopted out as equine therapy, pony club, hacking, dressage, jumping, endurance and children’s ponies. Those not suitable for domestic life, are provided with a quiet life either at a sanctuary or adopted by rehomers as a small herd or companion horses.

Good rehomers also have a 'boomerang' policy where horses who are adopted out are returned to ensure they don't end up in the cycle of sale yard, bad ownership, neglect or slaughter. Many of these rehomers have also offered for NPWS and the RSPCA to visit to discuss ways of working together.

We need Rehoming Regulations - Rescues and rehoming organisations have zero regulation, zero oversight, zero reporting and zero accountability. In all 'organisations' dealing with rescue, there are those that are not suitable, but these are a very small number.

To rescue a dog from the RSPCA, a home visit by an inspector is often required. A similar approach for brumby rehoming makes sense and should be welcomed by any rehomer applying for horses. The application to register to become a rehomer "Domestication (rehoming) Guidelines Responsibilities states:

The applicant acknowledges that NPWS staff or its representatives may conduct compliance inspections of the location where the animals are being kept.

White Alpine Equine (Nikki Alberts) has been rehoming since 2019, and has had no NPWS request for an inspection, nor had a 'spot check' occur. As the closest rehomer to Northern KNP, surely the property in Adaminaby would be an easy one for inspectors to visit?

Working together to provide an optimum solution will give wild horses the best opportunity at a future out of the KNP. To rush to a presumption of 'rehoming doesn't work' based on a small percentage of rehomers, or that 'trapping is inhumane' based on one visit to a trap site and Blowering, is inadequate research and oversight.

The ABA, associated rehomers and advocates would welcome the opportunity to meet, create and co-manage a Community approach, as recommended in the SAP Final Report.

The ABA has long term experience of rehoming from its many rehoming members, several have rehomed over 15 years. To help people understand this complex, highly skilled, costly process, we have produced several papers, see attached;

- ABA Rehoming principles
- ABA Rehoming set-up & running costs, and
- Australian Brumby Challenge run by ABA's rehomer the Victorian Brumby Assoc. web https://australianbrumbyalliance.org.au/humane-management-2/lobbying-campaigning-and-fundraising/australian-brumby-challenge-2/

3. ABA observations arising from the Inquiry hearing

3a. Managing wild horse populations ABA position

If KNP horses had been managed consistently from a few years ago when a 6,000 wild horse count was conducted by NPWS, by rehoming supported by fertility control, we would not be in this situation of high numbers leading to calls of aerial shooting.

The ABA notes that K. Nadazdy also supported ongoing management saying the idea of managing is to ensure that you control the populations in the park, not neglect them. Ms Nadazdy also spoke of gelding stallions, a concept that is unlikely to work for two reasons;

1. When a mob's stallion has been gelded, the mares soon see he is not doing his job, so periodically find an entire stallion, mate, then return to their home mob, Consider, 100 stallions and 100 mares can produce 100 foals, 50 stallions and 50 mares can sire 100 foals, even one stallion within reach of 100 mares, can sire 100 foals.

2. It is the mare who must be sterilised, using dart gun delivered PZP or GonaCon. IUD is not cost effective due to having to trap/operate on each mare, also IUD's can cause infection or slip out. It is cost effective to apply fertility control by dart gun to a mare to prevent foaling for up to 4 years. America volunteers dart local wild horse mobs.

With 3,000 horses in KNP designated horse areas, overall increase of around 18% annually, about 500 horses need to be removed annually to retain an overall population of 3,000. Of the 500 horses to be removed, 200 could be trapped and rehomed as the current capacity rehomer levels should be able to collect 200 annually, and 300 treated by fertility control.

3b. ABA Position Where rehoming is not possible

The ABA agrees that wild horses that are *beyond* the capacity of current rehomers to collect, should be preferable trapped and shot by being moved down panelling to a spot far enough away from its mob that the mob do not know what is happening and then shot with close up brain kill. Wild Horses not able to be rehomed, should not be loaded and sent to an abattoir, the extra stress is uncalled for, compared to a quiet direct kill shot out in the bush.

3c. ABA need resourcing and research per SAP advice

Animal Care Australia also supports the need for greater resourcing and research into more viable and humane alternatives to the current lack of proper management of both the national park, wild horses and other feral animal numbers. For far too long, that mismanagement has been resolved by massive culling in great haste rather than proper policy that not only reduces feral numbers but maintains that reduction.

Elements put forward in the SAP and CAP in the final report in September 2020 and then the KNP Wild Horse Heritage Plan in November 2021, gave options of other control methods, with only ground shooting being recently implemented. Now we see a rush to aerial culling, rather than taking advice from highly credentialed multidisciplinary experts.

An audit by 2 vets and the RSPCA of the aerial shooting trial has been recently released. The original plan of management suggested that a suite of management methods were going to be trialled – including ground shooting in situ, shooting in yards, dart tranquillising followed by captive bolt killing in yards, mustering into yards, as well as passive trapping, removal, and transport to a knackery.

Have all these methods been trialled and audited; if not why not, and if so, why haven't audit reports been released for these methods for the public to compare welfare outcomes?

3d. Invasive Species Council (ISC) 6,363 submissions “Save the Snowy’s” not aerial shooting.

ISC admits 6,363 submissions to it’s website to “Save the Snowy’s” was passed to NPWS as supporting aerial Shooting in KNP under questioning by the NSW Senate on 18-Dec-2024. See extracts from the 18-Dec-2024 hearing draft transcript referring to this statement;

- Wes FANG: If I look at the 11,000 that were made and I take away the 6,373 and I look at the 82 per cent, I get a factor of *about 2,600 that were in support of aerial culling* and about *3,000 that were opposed to aerial culling*.
- Jack GOUGH: it is not easy for people to make a submission saying that they support the killing of an animal, particularly the killing of an animal through aerial shooting.
- Wes FANG: You made it quite easy through your website. You titled it "Save the Snowys"; you didn't title it "Let's shoot a horse".
- Wes FANG: If it is the case that the pro-formas are removed, and that more people were opposed to aerial shooting than were supportive, would you—
- Jack GOUGH: It means that if we want to save the Snowys, we need to remove the feral horses quickly --- *WES FANG: You have mislabelled your submission.*

3e. NPWS H009 SOP Aerial Shooting KNP Wild Horses tabled 18-Dec-2023 Inquiry day

The ABA has serious concerns at the apparent lack of professional standards in the NPWS SOP 2023 (the SOP) exposed by the Animal welfare committee firearm experts on 18-Dec-2023. Each SOP issue below is referenced by the SOP page/headings.

Low calibre Fire-arms required up to 15 bullets per horses to finally kill horses

SOP page 2 Application: Acknowledges appropriate Firearms, ammunition and shot placement is to be used and firearms must comply with NPWS Firearms Management Manual.

The ABA urges this SOP and all future SOPs be checked by firearm experts outside NPWS control after questions/feedback from firearm experts on 18-Dece-2023 exposed that very in-appropriate ammunition used by NPWS in it’s trial aerial shoot of 600 plus KNP horses.

SOP page 5 Approved cartridges/calibres/ammunition: NPWS specify what is to be used.

We urge these specifications to be reviewed by a skilled professional asap since NPWS failed to use correct, more humane, ammunition. Likewise, all future SOPs must be approved by people with the capability to identify whether what NPWS claim is in fact correct, and be able to quickly, efficiently and as humanely as possible kill the target horses.

SOP page 2 Impact on animals: Shooters must do a flyback to visually ensure death and apply follow-up shots if necessary.

The ABA strongly emphasises that it is not possible to visually ensure an animal is dead since the animal may be temporarily unconscious, frozen in shock or paralysed from a broken back of lower neck area. The *only* way to confirm each horse is dead is to have a qualified vet conduct an immediate on-ground pulse and eye reflex examination.

SOP page 2 Impact on animals: States if a lactating female is killed but no foal is present …. reasonable effort .... made to find dependent young (foals) present.

The ABA questions how a shooter knows if a mare is lactating? Or that nearby dead foal is dependent on that mare, it may belong to another mare shot? ABA recommend a thorough search is conducted post adult horse kills to search for mis mothered foals.

SOP page 3 (human)Health and safety considerations: NPWS is to provide notifications and park closures to prevent visitors in the park shooting area are not hit "in accordance with NPWS aerial shooting requirements."

A property owner adjacent to the KNP was concerned for his life when helicopters began shooting as he and friends walked in the park near his boundary, as reported in newspapers and when NPWS were not alerting the public to aerial shooting periods/locations, has this been corrected? Do we need a regulatory body to ensure adhere to the SOP in future?

SOP page 4 Administration: States that outcome of operations must be recorded daily, including number of animals killed, their locations and log of the track flown.

The ABA finds GIPA/FOI requests are the only way to access this data which is a slow, costly way to gain what should be readily available information, we request that the SOP includes quarterly public record updates on their website. Transparent updates on horses killed can infer when shooting must stop and not go below the retention of 3,000 horses.

The photographs and video provided to the Committee by the RSPCA have not yet been approved for publication so we can't analyse them to show with certainty that there were shots fired other than at the brain and chest as the SOP states must happen.

SOP page 6 Carcass management: States carcasses must be managed in accordance with an approved KNP wild horse carcass management plan.

The ABA regularly hears of sightings of KNP shot horses/or near waterways, does the NPWS "approved KNP wild horse carcass management plan" require horses not to be shot or left To decay in/near KNP waterways?

Hon. Robert BORSAK referred to aerial shooting in NZ. No *Kaimanawa Heritage Horses* have been aerial shot, at least for decades. ABA's member Kaimanawa horses are slow mustered by helicopter to remove excess horses for rehoming, which the ABA has encouraged NPWS to trial. Neither are NZ wild stallions gelded. The Kaimanawa Heritage Horse group have begun to apply fertility control to Wild Kaimanawa mares, but not stallions.

ABA key recommendations

1. The NPWS aerial shoot 'vote' to begin aerial shooting and instead, *only* count 'votes' stating support to aerial shoot, which is about 2,600 for aerial culling and about 3,000 against aerial culling in KNP.

2. NPWS has already shot horses within retention zones – such non-compliance to the NSW wild horse heritage act and KNP management plan must not be repeated.

3. NPWS first targets high density horse areas OUTSIDE plan designated heritage horse retention zones, then from zero horse zones.

4. An total re-count is required BEFORE any reduction in horse retention areas is even considered due to a high risk horse retention zones are already under 3,000 horses, also a horse count as the KNP population approached 5,000 to ensure 3,000 remain.

5. Ensure horse retention zones are *not* disturbed to minimise horses moving beyond their safe zone. Heritage zones need to retain their heritage foundation stock – an essential, critical purpose of the Wild Horse Heritage Act and KNP management plan.

6. The NPWS to implement the NPWS Scientific Advisory Panel (SAP) recommend for regular on-ground counts of threatened species and impacts directly due to horses.

7. Rehoming urgently needs to be regulated as with other treating professions.

8. Regulation should be balanced with ensuring rehomers have access to training and relevant appropriate information to help up-skilling rehoming standards.

9. That NPWS stop aerial shooting horses during the KNP foaling season.

10. Start to resource and trial, fertility control, aerial/ground slow muster by locals, and other humane alternatives to manage wild horses in national parks.

11. Review NPWS wild horse SOP/plans by people outside NPWS with the capability to know if NPWS actions/plans are best practice when horse welfare is involved.

12. Begin annual counts of “at risk” threatened species so monitor trends of at-risk species to compare “real” results with each management strategy.

In conclusion

The ABA values this inquiry’s approach to identify concerns with aerial shooting wild horses in KNP, and witness opportunities to put forward ways to improve wild horse welfare.

The ABA is concerned about negative rehoming views from two witnesses on 18-Dec-2024 with limited experience of long term, professional rehoming which reduce NPWS intent to support rehoming. Nikki Alberts (White Alpine Equine) has the skills and expertise to explain how to minimise potential negative experiences and is keen to show people her facility.

The ABA strongly urges the NSW Upper House Inquiry *to question Ms Alberts* on ways to maximise rehoming success to the inquiry committee, for example on February 5th 2024.

Yours sincerely,

President, Australian Brumby Alliance Inc.

Att: ABA Rehoming principles, and
ABA Rehoming set-up & running costs.

The Australian Brumby Alliance

ABN : 90784718191

Rehoming Guiding Principles

For

People with Domestic Horse Training Awareness

Introduction - Generations of horses living in the wild posse unique qualities which are impossible to reproduce today. Along with these qualities comes the need to recognise certain evolved characteristics which require initial, knowledgeable and respectful care, in order to enter a full and productive life in our domestic environment.

These guiding principles have been sourced from the Australian Brumby Alliance (ABA) *Rescue & Care for Wild Horses (2010)* and the Victorian Brumby Association's *Australian Brumby Challenge Trainer Resource information*, and ABA Rehoming groups. Information has been written from our experience and offered freely with the best of intentions; how-ever professional advice should always be sought if you have any concerns.

Index for Brumby Rehoming Guiding Principles

1. *Transport from Park to Rehomer* – see Brumby Transport Guidelines **att-1**.

Park staff record little information on Brumbies they have trapped. It is recommended that the rehomer records as soon as possible, at a minimum, the following;

- Date trapped, sex, colour and age [Foal, Yearling or Adult],
- Notation of any accidents or injuries to each horse received,
- Photograph of each horse markings, including injuries;
- Date handed the Brumby is becomes the Rehomer's responsibility.

2. *Rehoming Period*

In this document *rehoming period* refers to the period taken for a Brumby to make the transition from wild and unhandled, to accepting basic ground handling, such as being caught in an open paddock, halter led, feet picked up and able to float load.

2.1 Receiving horses direct from the wild Requires;

- Appropriate transport for unhandled horses i.e. cattle trucks with loading ramp,
- Yard/s or small holding paddock/s to download unhandled horses, that are easily accessible for the truck the Brumbies arrive in,
- Yards that allow the handler to check for injuries or behavioral issues etc.; provide space for horses to learn to drink tap water and eat hay; and introduce 'fencing',
- *Note*: In the bush, horizontal flora parts as horses run through it, excluding trees, etc. so when Brumbies first enter yards & paddocks, they may try to run through solid barriers. Brumbies soon learn to respect fences and adjust to staying in a defined area.
- *Note*: The American Bureau of Management (BLM) advise 5ft fence heights for yearlings and at least 6ft fences for adults,
- Yards with room for Brumbies unused to containment to stay in for several days and allow the handler to maneuver Brumbies without direct contact,
- Appropriate access to water and feed and round yard/s,
- A crush or equivalent is preferable.
- Appropriate minerals/salt lick for your area as soon as possible after they arrive then re-apply as needed. *Note*: Wild Horses often lack vitamins and minerals.

2.2 Accepting new feed sources

- Feed good quality *pasture* (grass) or meadow hay.
- *Note*: Over many generations, Brumbies have developed the ability to process large amounts of poor quality feed.
- *Note*: Brumbies are naturally suspicious of new feed and may take several days to watch other horses eat similar feed, or sniffing the feed in the yards, before they try it.
- *Note*: Newly acquired Brumbies often eat much less than domestic horses as less feed is normal for a Brumby.

2.3 Accepting new water sources

- It may take a few days for a recently caught Brumby to learn to drink still water from containers; hay around the container can encourage the transition.
- *Note*; Brumbies in the wild are used to drinking running water at ground level,
- *Note*: Sometimes horses tip water out of containers onto the ground in order to get a drink before they grasp the concept of drinking still water at container level.

3. *Wild Horse Characteristics*

3.1 Wild Horse Characteristics

- Brumbies are by definition hardy (but this does not mean they can tolerate neglect), frugal, (but need feed), sensible (but not immune to mistreatment and definitely not oblivious to their natural instincts),
- They are correct in conformation for soundness and for the type of survival qualities their breeding has developed, although this is not always wanted in the show ring,
- Most Brumbies have iron hooves, big sloping shoulders (even in small horses), gentle, wide set eyes and very big barrels,
- Brumbies are highly protective of new foals, having had to defend their young from Dingoes, so react quicker to perceived threats than domestic mares.
- Young Brumbies with large barrels and big shoulders can seem disproportionate and to be carrying a "worm burden", this minimises as they grow into their adult bodies.
- Brumbies are slow to mature – emotionally as well as physically. It is recommended a Brumby is not ridden hard or regularly until 4–5 years old.
- A wild horse is a hardy, intelligent, affectionate, loyal and long lasting companion and in the right hands will never look back - nor will their owners!

3.2 Brumbies and Human Interaction

- Being raised is social families, Wild horse have evolved an innate ability to read body language so are exceptional quick to read very small changes in body language, more so than most domestic horses.
- While there is no *correct* training method to use, we advise using *least resistance* type methods which build a loving and *respectful* relationship and use natural wild horse behavioural psychology to guide the horse's responses.
- *'Approach & retreat'*, '*Sensitizing & de-sensitizing'*, '*Making the right thing easy and the wrong thing difficult'*, '*Rewarding through release of pressure*', '*Consistency and patience*' and '*Finding the feel*' are all catch phrases of gentle trainers and help keep both Rehomer and Brumby safe while building a strong foundation for future training avenues.
- Brumbies have a well-developed sense of self preservation, so are exceptionally sensitive to their environment and perceived threats, but rarely inherently aggressive or flighty. As Brumbies see humans (eyes in front) as predators, a handler's eye focus will alter pressure.
- A Brumby head bob or nodding can indicate they feel confused but trying to work out what is expected of them. Train within the horses learning ability and avoid prolonged pressure to force the horse to comply with demands it does not understand or cannot tolerate.
- *Note* - A newly arrived wild Brumby can seem quiet; when in fact they may have shut down to ignore unpleasant sensations. This seemingly quiet period will pass, so read the signs and adapt as needed once the shutdown period passes.

3.3 Maintaining Records Suggestions

- Date the horses passed to the rehoming group ownership,
- Photograph each horse on arrival (shows condition & horse identity on arrival)
- National Park/location each horse came from,
- Identifying marks and any injuries, etc.
- Decide whether to freeze brand, microchip, DNA hair sample, when to geld etc. once the horse has adjusted to close human contact,
- Record key Progress Stages for each horse [halter lead, electric fences], etc.,
- Record any treatments [worming, illness, injections] etc.,
- Contact details of new owner, date the horse goes to its new home.

4. *Forever home and follow-up*

In this document, *forever home* means where the horse goes after the rehoming period

4.1 Partnering the Brumby with its new owner

- *Forever* owners able to spend time with their Brumby at the rehomer's property will help smooth the transition to the *forever* home and sort any teething concerns.
- Check the new owner's property has appropriate fencing, paddocks and another horse for company. A Brumby used to a family mob feels insecure without other horses.

4.2 Handling & care information for the new owner, *suggestions*;

- Congratulations on choosing a Brumby; we hope you and your horse share many happy and useful years together. We have cared for your horse since he arrived from a National Park, basic handling and introduced to him to a new life.
- Brumbies bond closely with an owner they respect. In the wild the herd instinct is very strong, it needs to be, for their survival; now you have become your horse's leader so by following a few rules your pleasure will increase immensely.
- Give your new brumby arrival just enough time to take in his new surroundings before developing his basic training in the direction you want to go,
- Observe your horse in the paddock, tune in to his body language, he will teach you and show how he's feeling so learn to read his signs as he learns to read yours.
- Your Brumby doesn't need a stable or to be rugged as he is used to living in a range of environments, but he does need some shelter from the weather.
- Fresh, good grass is the best food as this is his natural diet in the wild and he is 'feed efficient', having learnt to cope on lower protein requirements
- Introduce any diet change gradually to avoid colic or stomach upsets.
- Correct trimming and barefoot is a great for Brumbies. They have natural iron hooves.
- Avoid forcing him to do something; that is negative training. If things are not going as wanted; retreat, wait a while and try again. Horses are very forgiving of your mistakes so be prepared to be forgiving for his too.
- Never chase him as this only frightens him. Remember, he sees you as a predator.
- Brumbies learn your voice so teach him yours so he can respond accordingly.
- If your horse is avoiding something they don't like, distance him from you; horses are inquisitive and like to be noticed, this will hurt his pride and make him think twice.
- Reinforce the positive, spend time with him, anyone with empathy can achieve plenty,
- Each Brumby learns at a different pace; this doesn't mean your horse is different or difficult; it only shows his own unique personality.
- Catch, handle and yard your Brumby on a regular basis so he does not slip back in the early months of getting to know you. Regular handling is essential for his wellbeing and to ensure he maintains a healthy respect for you as his *leader*.
- There are many 'how to do' horse books on the market, read them but choose your own path, you know your horse best, not the writers of the books.
- *Parasite Control* - Check your Brumby regularly for worms in the first 12 months, there after same rate as other domestics.
- *Toxic plants* - Usual precautions for toxic plants, even though Brumbies have a natural tendency to avoid toxic plants problems can still occur.
- *Sand Colic* - Brumbies are more stoic with ill health, but this innate toughness means Brumbies sometimes don't show symptoms until they are very ill indeed.

4.3 Periodic progress updates

- We encourage the new owner to ring with any concerns they may have and initiate contact as needed to smooth the transition phase,

3.4 Full potential in domestic life

- Brumbies are able to do a wide range of domestic horse riding activities, and are great for children's ponies, trail & endurance riding, show ring activities, jumping, obstacle races, camp drafting, i.e. anything they could have been doing naturally in the wild.

A Brumby is special; he will always have that something extra he was born with, that contact with the essence of nature and a privilege sharing our life with him.

6. *Training Resources*

Websites

Wild Horse Mentors – big site, with lots of wild horse specific information: http://www.whmentors.org/

Mustangs 4 us – this site has a lot of information on a variety of wild horse topics: http://www.mustangs4us.com/ and more specifically, a great booklet for new adopters/ trainers of wild horses here: http://www.mustangs4us.com/gentling_&_training.htm

Lauman training - Kitty and her husband Rick have trained more mustangs than most, use fabulous methods which our own training is heavily based on and are all about the mustangs. Their website is well worth a look: http://www.laumantraining.com

Frank Bell – Frank has been gentling mustangs for a long time. There is a lot of good info on his site and he also has a great gentling DVD (see below): http://www.horsewhisperer.com/fishing_for_mustangs.html

Joe Kamp - The Soul of a Horse. There is nothing on Joe's website that isn't worth reading. Joe's ability to see 'the way it has always been done' and find the way that horses would have it done is amazing. http://thesoulofahorse.com

Australian Brumby Alliance - Rescue & Care of Wild Horses in Australia which gives general set-up notes for a Wild Horse Re-homing organisation and for Wild Horse rescue in Australia. http://australianbrumbyalliance.org.au/wp-content/uploads/2012/09/8.0-Rescue-Care-of-Wild-Horses-In-Australia.pdf

Papers:

Equine Behaviour. Patricia Evans, Utah State University: http://www.mustangheritagefoundation.org/media/pdf/Equine_Behavior.pdf

An introduction to handling your Mustang by the Mustang Heritage Foundation: http://www.mustangheritagefoundation.org/media/pdf/An_Introduction_to_Understanding_Your_Mustang.pdf

Wild Horses; the stress of captivity. Bruce Nock: http://dl.dropboxusercontent.com/u/42742685/Stress%20of%20Captivity-Bruce-Nock.pdf

DVDs:

Wild to Willing – Core training, Kitty trains Mustangs, her DVD is easy to follow and she demonstrates on three adult mustangs. http://www.laumantraining.com/mercantile

The First Touch. By Lesley Neumann. A fabulous DVD. Lesley trains mustangs for the BLM and does training displays across America. http://www.lesleyneuman.com/video.htm

Pole Gentling the Wild Horse. By Frank Bell and John Sharp. More great viewing of a terrific method. The best part of this DVD is that the mustang didn't react in the expected way, so you get to see the problem solving that we all know is an integral part of training any horse: http://www.horsewhisperer.com/horse_training_videos.htm#Pole

Books:

Working with Wild Horses. Can be downloaded for $7.74: http://www.lulu.com/spotlight/nancyatmustangs4usdotcom

The Wild Horse; An Adopters Manual. By Barbara Eustis-Cross and Nancy Bowker. This well written book is out of print, but you can often get it on e-Bay. It is for people taking on their first wild horse (most USA/BLM mustangs are rehomed totally wild and unhandled.

The Soul of a Horse Blogged and also ***Born Wild; the Soul of a Horse***. By Joe Kamp. Has a strong Mustang emphasis, see Joe's website: http://thesoulofahorse.com

Trust n Horses. By Franklin Levinson - Well priced e-Book about Franklins trust based system. http://www.wayofthehorse.org/Testimonials/review-ebooks.php

Jill Pickering,
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16 April 2015

Attachment 1: Brumby Transport Guidelines

Note: This paper was provided to the Independent Technical Reference Group, reporting to the NSW, National Parks & Wildlife Service review of Kosciuszko National Park Wild Horse management 2015.

Australian Brumby Alliance Inc.

www.australianbrumbyalliance.org.au
ABN : 90784718191

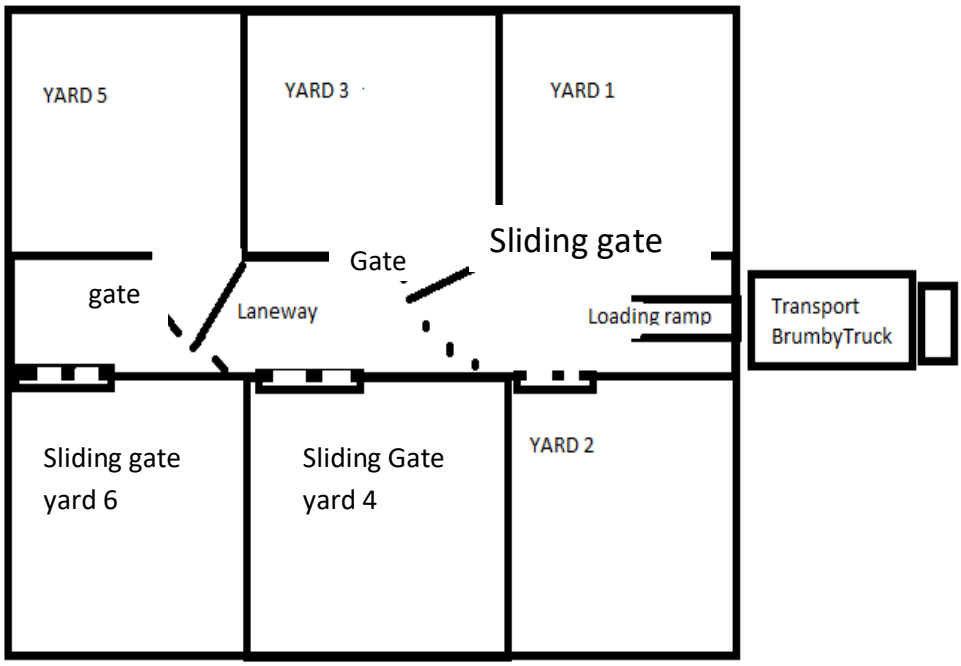
2-May-2021

ABA GUIDE for Rehoming start-up / running costs (May 2021)

The Australian Brumby Alliance Inc. (ABA) advocates for the recognition, management, preservation and welfare of Australian Wild Horses to be retained in sustainable population levels in the heritage areas they have occupied for 150 to 200 years, for several reasons, including;

- To preserve our social heritage (see ABA Founding Stock Heritage Report):
- In sustainable numbers, Brumbies can provide positive environmental impacts, and
- Provide living Brumby heritage for future generations to see and learn from, and
- Inspire Australian arts, poetry, children books, paintings, etc.

BASIC diagram EXAMPLE of Brumby Safe Handling yards to consider:



A cost guide to setting up temporary transfer yards.

- Approximate costs: One yard needs 12 panels so 4 yards and central laneway, you need approx. 50 portable panels (1 for 2200 x 1800 x$100), plus 5 gate/sliding gates (1 costs $250, and add support struts as needed.
- Race Bows as required. Plus loading ramp $2,500. Plus accompanying fittings. Remember, horses being held need daily attention for water, feed and injury check.

Rehomer set up cost (include but are not limited to):

- Portable Panels for yards (see example above) **$100** for 1x panel 2200 x 1800, 1xgate **$245**.
- Laneway width 1800 (also gate width to control closing/opening yards & lane to separate and load Brumbies safely.
- Yards can be sand based, hardened by lime to drain urine (sand approx. **$400** per truck load.
- Race Bows $**130**
- Loading Ramp for safe collection of wild horses $**2,500** approx.
- Watering points and Electricity if needed at night.
- **Hardened track from road to loading ramp for heavy trucks**.
- Hiring a stock truck or purchasing a stock truck
- Setting up a suitable facility, or adapting an existing one, see example below;

Photo credit: HOOFs2010

Rehomer ongoing costs (i.e. insurance-feed-gelding etc.)

There is a direct relationship between rehomer capacity and the money available to the rehomer to collect, manage, provide appropriate facilities, feed & water; plus Vet costs such as gelding, microchipping and add hoc health issues and handling ongoing costs, etc.

"Save The Brumbies" (STB) offered the following information on actual costs STB have to find to collects Brumbies from across NSW National Parks & Wildlife Services (NPWS).

- **Transport -** depends on distance. Guy Fawkes River and Oxley Rivers NPs approx. $250 per horse, however the KNP horses, transport was around $6000 for 5-6 horses.

- **Vet. Gelding**, approx. 50% of our horses need gelding at $350 per horse, the add **microchip**, we also need to call our vet for other reasons, i.e., injury etc.

- **Feed**. A rough average annual feed bill is $28,000 with say 40 Brumbies, depending on good years with water and fresh grass conditions down to drought requiring hand feeding and buying water for several months. Horses in the yards being handled are fed twice daily for several weeks depending on their initial gentling progress.

Ongoing costs for first 6 months (minimum $1,500 Ave.)

The cost to feed, geld, microchip the average horse over an average 6 month gentling period is around $1500 excluding unexpected vet work and reliant on volunteer horse handling. Adoption fees never cover infrastructure i.e. purchase/rent land, fencing, watering points, installing sufficient handling yards, insurance, maintenance etc. and reliance on volunteer staff to handle the Brumbies.

Jill Pickering
Australian Brumby Alliance Inc.
Draft at 2-May-2021

NSW NATIONAL PARKS & WILDLIFE SERVICE

NPWS H009 Aerial shooting

Wild horse control standard operating procedure

Document tendered by
Hon Penny Sharpe MLC
Received by
Emily Whittingstall
Date: 18 / 12 / 2023
Resolved to publish Yes / No

Document control

Author	Feral Animal and Weeds unit, NPWS
Date of original endorsement	9 December 2023
Date last reviewed	

Related documents

NPWS wild horse control standard operating procedures:

- NPWS H001 Ground shooting
- NPWS H002 Passive trapping
- NPWS H003 Removal for domestication (rehoming)
- NPWS H004 Removal for knackery or abattoir
- NPWS H005 Killing in yards (in preparation as of November 2023)
- NPWS H006 Mustering (in preparation as of November 2023)
- NPWS H007 Euthanasia (in preparation as of November 2023)
- NPWS H008 Problem wild horses (in preparation as of November 2023)

Sharp T, 2011. *Aerial shooting of feral horses. Standard Operating Procedure*. PestSmart. Centre for Invasive Species Solutions, Canberra, Australia. Available at: https://pestsmart.org.au/toolkit-resource/aerial-shooting-of-feral-horses

NPWS Aviation Safety Policy

NPWS Aerial Shooting (Feral Animal Aerial Shooting Team (FAAST)) Aviation Standard Operating Procedure

NPWS Firearms Management Manual

The FAAST Manual: Feral Animal Aerial Shooting Team

Contents

Background

Wild horses in national parks negatively impact the natural environment, cultural and historic heritage, and public safety. The National Parks and Wildlife Service (NPWS) is committed to managing the negative impacts of wild horses in New South Wales (NSW) national parks through implementation of a management control program which is consistent with relevant Commonwealth and/or NSW animal welfare legislation, regulations, codes of practice and standard operating procedures.

This Standard Operating Procedure (SOP) meets the requirements of the Kosciuszko National Park Wild Horse Heritage Management Plan in relation to aerial shooting of wild horses.

This Standard Operating Procedure (SOP) is specific to NPWS operating in Kosciuszko National Park and does not replace or override any NSW or Commonwealth legislation. The SOP has been developed following consultation with the RSPCA NSW and relevant specialists, and completion of a documented field assessment preliminary program. The SOP will be reviewed annually or more often as required.

Application

Aerial shooting of wild horses is particularly useful in large, remote and/or inaccessible areas where the use of other control methods is not effective and/or practicable (Dobbie et al. 1993; Edwards et al. 2004).

The animal welfare outcomes of aerial shooting are improved when carried out by trained, experienced and skilled shooters, multiple shots are taken, and appropriate firearms, ammunition and shot placement are used (Hampton et al. 2017).

There are several key considerations that will guide the application of aerial shooting by NPWS:

- Aerial shooting should be used in a strategic manner as part of a program designed to achieve sustained effective population control.
- Aerial shooting of wild horses will only be performed by approved NPWS *Feral Animal Aerial Shooting Team (*FAAST) accredited firearms users who have the necessary experience, licences and accreditation. Shooter skill has been shown in multiple studies to be the most important parameter affecting animal welfare (Hampton et al. 2014, 2017).
- The safe and effective management and use of firearms must comply with the *NPWS Firearms Management Manual*.

Animal welfare considerations

Impact on target animals

NPWS will use trained, experienced and skilled shooters, and appropriate firearms and ammunition, in a manner that results in the most rapid death possible for shot horses.

NPWS will also ensure:

- That shooters only target the chest (heart/lung) or head (brain).
- That shooters will not take a primary shot at an animal unless the anatomical target zones listed above are clearly visible.
- That, where practical, all horses in a social group will be killed before targeting other social groups.

- Since it is difficult to assess with certainty from the air whether an animal is dead, it is essential that a deliberate policy of 'insurance shots' (also known as 'repeat shooting' or 'over-kill') be followed, where a minimum of two shots are used per animal. That is, after an initial chest or head shot, at least one other shot must be fired into the chest to ensure death.
- A 'fly-back' procedure must be followed, in which the shooter is flown back over the shot animal to visually ensure death and apply follow-up shots to the chest if deemed necessary (Hampton et al. 2022).
- That, in the event of a wounded horse, it must be located and killed as quickly as possible before targeting additional animals.
- Thermal detection equipment (Cox et al. 2023) must be available to permit quick detection and follow-up of non-fatally wounded horses if required.
- if a ground observation is undertaken - if a lactating female horse has been killed but no foal is present, all reasonable efforts will be made to find any dependent young and kill them as quickly as possible.

Impact on non-target animals

Shooting will only occur once a wild horse has been positively identified.

- Shooting is target-specific, i.e. a targeted wild horse will be positively identified before a shot is taken, thus avoiding direct harm to non-target animals.
- Non-target impacts of shooting may include noise disturbance.
- The use of lead (Pb)-free projectiles approved for use in this SOP avoids impacts of toxic lead residues in carcasses to wildlife scavengers. The potential impact of lead projectiles also approved for use in this SOP on wildlife scavengers is acknowledged.

Health and safety considerations

- A first aid kit must be available.
- Care must be taken when handling wild horse carcasses as they can transmit zoonoses such as Q-fever and Hendra virus. Appropriate personal protective equipment, e.g. gloves, must be worn to protect skin. Routinely wash hands and other skin surfaces after handling carcasses, and before eating, drinking and smoking. Horse carcasses are heavy, so care must be taken when lifting or dragging them.
- Visitor and staff safety is a priority consideration when undertaking aerial shooting operations. All participants in the program must review the Operational Shoot Plan and Job Safety Analysis (JSA). Notifications and park closures will be undertaken in accordance with NPWS aerial shooting requirements.
- Storage, use and transportation of firearms and ammunition must comply with relevant legislative requirements and the *NPWS Firearms Management Manual* and the *NSW FAAST Manual*.
- Aviation operations must comply with relevant legislative requirements, the *NPWS Aviation Safety Policy* and the *NPWS Aerial Shooting (FAAST) Aviation Standard Operating Procedure*.
- If on-ground post-mortem observations are being conducted, shot animals must always be approached from the dorsal (or spinal) side.

Equipment that may be used

Firearms and ammunition

- Firearms:
  - FN SCAR®-H semi-automatic rifle.
  - Aimpoint® red dot scope with zero magnification.
- Ammunition:
  - .308 Winchester®: 150 grain minimum (see approved ammunition table).
- Silencer/suppressor: B&T AG® (formally Brugger & Thomet AG®) FN Scar 7.62 Sound Suppressor Rotex V.
- FLIR ThermoSight® T75 clip-on thermal scope.
- Thermal scope/monocular: minimum 640×480 sensor.
- Monoculars and binoculars.

Two functioning firearms of the specified make and model must be on-hand at all times in the aircraft.

The accuracy and precision of firearms should be tested before any shooting operation.

Aircraft

- Refer to the NPWS Aerial Shooting (FAAST) Aviation Standard Operating Procedure for aircraft requirements.
- Operations may involve the simultaneous use of multiple aircraft. Standard aviation practices will be followed to ensure suitable spatial separation between simultaneously flying aircraft.

Procedures

Administration

- Relevant documentation as per NPWS policy requirements must be developed for aerial shooting operations. This may include:
  - Shooting operations plan.
  - Notification risk assessment.
  - Officer in Charge and Principle Officer in charge checklist.
  - Aerial shooting (FAAST) officer in charge checklists.
  - Checklist for approval to conduct aerial shooting.
  - JSA and job safety brief.
  - Review of environmental factors.
- The outcomes of operations must be recorded daily, including the number of animals killed, their locations and a log of the track flown.

Personnel

- Each team must comprise three members as a minimum (there must be a pilot in command, a primary shooter and an air observer/navigator).
  - A qualified independent observer (e.g. veterinarian, thermal operator) may also be included in the team as required.
- Refer to the *NPWS Aerial Shooting (FAAST) Aviation Standard Operating Procedure* for aircraft operator, aerial observer/navigator and pilot-in-command requirements.

Approved cartridges/calibres and ammunition

Projectile energy is an important determinant of welfare outcomes in wildlife shooting programs (Hampton et al. 2016). The maximum shooting distance of approved ammunition for wild horses is the distance at which at least 2,711 Joules (J) of kinetic energy is delivered, which equivalent to 2,000 foot pounds.

Before ammunition can be used, ballistic testing using tissue simulant gel blocks must be undertaken to quantify shot precision, estimate terminal kinetic energy levels, and characterise bullet penetration and deformation (Hampton et al. 2021). Outcomes of the testing must be approved by an independent veterinarian prior to use on live animals.

.308 Winchester® ammunition: Sako 150-grain Powerhead Blade® (lead-free)

	Muzzle	50 m	100 m	150 m
Velocity (m/s)	840	804	769	734
Energy (J)	3,442	3,134	2,865	2,613

.308 Winchester® ammunition: Winchester 150-grain PowerMax® bonded protected hollow-point (lead-based)

	Muzzle	50 m	100 m	150 m
Velocity (m/s)	860	817	775	734
Energy (J)	3,587	3,238	2,915	2,618

Above ammunition is manufactured and factory-loaded by Sako® and Winchester®, respectively.
Data above is from the manufacturers via their websites.
Both ammunition types above are approved for use.

Shooting sequence

- Chase time is an important contributor to duration of stress during aerial shooting (Bradshaw et al. 2023). Chase time should be kept to a minimum to the extent reasonably practicable, noting the other requirements of this SOP (e.g. that all horses in a social group should be shot, where practical).
- Once a wild horse (or group) is sighted and has been positively identified, the pilot should position the helicopter as close as is safe to the target animal in order to ensure an accurate shot.
- The pilot should aim to provide a shooting platform that is as stable as possible.

- A horse should only be shot at when:
  - The target anatomical zone can be clearly seen.
  - It is within the effective range of the firearm and ammunition being used.
  - It is likely that the horse can be rapidly rendered insensible, with subsequent death without the animal regaining consciousness. If in doubt, do not shoot.
- All animals must receive multiple shots to the target areas to minimise time to insensibility and the risk of non-fatal wounding (Hampton et al. 2022).
- Shooters may target the chest (heart/lung) or head (brain) only. Initial shots targeting the chest are preferred, since it is a much larger target, and can be more reliably hit when shooting at a moving animal from a moving shooting platform. Chest shooting also causes a maximal degree of haemorrhage (Stokke et al. 2018) and is hence less likely to result in non-fatal wounding, with most cases of non-fatal wounding in past studies attributed to animals being struck in the neck during attempted head shooting (Hampton et al. 2017). However, the judgement of the shooter is paramount in determining the optimum initial shot placement for each target animal.
  - Immediately after delivering the initial shot, the shooter must deliver a minimum of one additional shot in the specified anatomical target areas.
- In a line of running animals, the animals at the tail end should be shot first and then move forward until all animals in the line have been killed.
- To the extent reasonably possible consistent with other provisions of this SOP, dependant foals should be shot first.
- In the event of a suspected wounded animal, no further animals can be targeted. Every practical effort should be made to locate a suspected wounded animal. The animal must then be killed via additional shots delivered to the specified anatomical target area(s).
- Team members should be aware of the possibility of isolated foals (whether due to maternal abandonment, disturbance or other factors) and keep a look out for any such foals. Any isolated foals should be shot.

Aim points

Horses must be targeted in the chest (heart-lung area) or the head (brain). Refer to the *FAAST Manual* for recommended chest and head aim points.

Carcass management

Carcasses must be managed in accordance with an approved Kosciuszko National Park Wild Horse Carcass Management Plan.

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