The Australian Brumby Alliance

ABN : 90784718191

Submission
to the
Natural Resource Commission: Part-1
Pest Animal Management Review (NSW)
12th May 2016

Thank you for the opportunity to provide feedback on NSW's Pest Animal Management draft plan released April 2016.

The Australian Brumby Alliance (ABA) Inc. was formed in April 2008. Its mission is to act as a National Body for the Recognition, Management, Preservation and Welfare of Australian Wild Horses (Brumbies). Member groups have developed a solid understanding of the skills and complexities required to collect Brumbies trapped by park removal programs, then gentle and rehome them. Rehomed brumbies are suited to a range of general equestrian activities including endurance riding, horse shows, children's ponies, carriage work and/or simply the family 'special'.

ABA members have worked with park staff in New South Wales, Victoria and Queensland to implement the most humane method of brumby control *if* respective park/forestry management plans require Brumby numbers to be lowered.

The ABA applauds the plan's comprehensive pest strategy and for acknowledging that Brumbies are seen by many as a cultural icon with strong cultural and historical importance.

The ABA submission in response to the draft Natural Resources Commission (NRC) – Pest Animal Management Review (PAMR) for NSW consists of three parts which are titled;

- **Part-1**; ABA responses to Wild Horse information in the NCR-PAMR draft report,
- **Part-2**; ABA responses to NRC-PAMR Recommendations, and
- **Part-3**; ABA response to the Independent Technical Reference Group (ITRG) report to the NPWS KNP wild horse management plan. We have also added to this report (as an attachment) the ABA submission to the ITRG.

Key

NRC Natural Resources Commission
PAMR Pest Animal Management Review
ABA Australian Brumby Alliance Inc.
KNP Kosciuszko National Park
ITRG Independent Technical reference Group [report to the KNP Wild Horse review]
NPWS National Parks and Wild Life Service (NSW)

References, A comprehensive list of references is provided at the end of this document

NRC - 7.2 VALUING SCIENCE AND HERITAGE – FERAL HORSES

NRC - *Issues surrounding feral horse management are complex and often contentious, attracting much public interest. Feral horses or brumbies are seen by many as a cultural icon with strong cultural and historical importance.*

> We request there be formal recognition of Wild Horses, also known as Brumbies, as a cultural icon with strong cultural, social and historical heritage values.
>
> The ABA does not support the use of the NRC terminology "feral horses" throughout the document and request it be changed to Wild Horse or Brumby.

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NRC - *An independent technical reference group is currently reviewing the Kosciusko National Park Wild Horse Management Plan. The plan will identify objectives for managing the feral horse population within the park, and provide wide-reaching guidance on the most effective and appropriate control methods.*

> In this regard please refer to ABA Part-3, i.e. our response to the ITRG report.

NRC - *There are no known predators of feral horses, although dingoes or wild dogs occasionally take foals (Markula et al. 2009).*

> Brumbies have several predators including snakes, dogs, and humans (opportunistic shooting and brumby running) and they are also impacted by climatic events such as drought, snow dumps and wild fires e.g., severe wildfires in 2003 reduced Brumby numbers by 64% in KNP. However we acknowledge these predators and climatic events may be in-sufficient to control numbers.

NRC - *A recent report by Worboys, Freudenberger and Good (2015) found that feral horses have an adverse impact on the ecosystems of national parks, in particular the Australian Alps.*

> Both native and non-native species spread weeds, e.g. birds, kangaroos, wombats, deer, goats, and humans. Claims by Worboys (2015) of negative Brumby impact in KNP, ignore the wealth of overseas and some Australian research which refutes these claims, ***[***refer to ***Ref-1]*** , such as;
>
> - Humans introduced exotic weeds, (Scotch/Spanish Broom, Lupins, willows to KNP);
> - Seeds are primarily dispersed by gravity, wind, surface water movement, soil erosion, birds, ants, dung beetles and rodents;
> - The invasion and success of exotic and introduced species in rivers is facilitated by the alteration of the Snowy Hydro Scheme flow regimes;
> - Clothing on 33,000 annual hikers visiting Kosciuszko significantly spread seeds

NRC – *The Brumby population has increased by 30 percent in just 5 years from 4,200 (2009) to 6,000 (2014) despite authorised control methods being in place.*

> This statement does not recognise that NPWS trap skills have significantly improved during this five year period to the extent that NPWS can now remove 670 in one year.

The Parks Victoria draft management plan, June 2014 "Greater Alpine National Parks" (page 28) refers to a target population of 5,000 which was the population level in 2001, and states *"Modelling suggests that to return the population size to 2001 levels (around 5,000 horses)"* and *"Once this target population size is reached approximately 900 horses would need to be removed each year to maintain the population at this level"*.

Therefore if the existing authorised control method i.e. "Passive Trapping" is effectively implemented annually, complemented by fertility control applied by dart gun on free roaming Brumbies, a target population of 5,000 can be sustained.

With regard to fertility control PZP has been used to control birth rates on USA Mustangs for 30 years, and the Dartmoor Hill Pony Association is in its final three year trial of GonaCon, applied by dart gun to wild Dartmoor ponies. A foal not born is a Brumby that does not need to be removed.

The ITRG advise a 2 tier approach;

- Short term (5 years) – removal of horses from key zones for the purpose of asset protection, and moving towards acceptable numbers across the park, and
- Long term (20 years) – strictly managed presence of horses in designated parts of the park, unacceptable environmental impacts minimised, and the need to remove large numbers of horses minimised.

The short term could be to reduce the population to 5,000, and the longer term to work on impact level indicators (of all species) and conduct research on the ecology of horses in KNP, as suggested by the ITRG because "*Surprisingly little is known about the ecology of horses in KNP, and very useful information would come from funding PhD projects on behavioural ecology, demography, movement ecology, habitat preference, and abundance*".

NRC - *In 2015, this distribution has spilled over into the ACT from NSW and into the water supply catchments of Canberra.*

The presence of Brumbies in water supply catchments does not represent a risk to humans or water quality. This statement is based on the research undertaken by Adda Quinn (1998) who researched the potential risks of horse manure, and concluded **"***The chemical constituents of horse manure are* ***not toxic to humans****. Horse guts do not contain significant levels of two waterborne pathogens of greatest concern to human health risk, Cryptosporidium or Giardia, neither do they contain significant amounts of the bacteria E. coli 0157:H7 or Salmonella."* Please refer to ***Ref-2*** for further information.

NRC - ENVIRONMENTAL IMPACTS OF HORSES

NRC - *As an introduced, hard-hooved and large herbivore, any established populations would be expected to impact on the native vegetation and environment. While there are no peer reviewed studies of the situation in Australia, globally, there is documented evidence (Nimmo and Miller) (2007) for substantive review and references, of feral horse impacts.*

The above statement is not balanced as it does not take into consideration the impacts to native vegetation and the environment across KNP caused by climate, humans and other species, for example:

- DPI Victoria reported in February 2003 that major flooding, affected water quality and increased the risk of long-term erosion;
- High and fast flows have caused destabilisation and erosion of river banks, scouring and removal of vegetation;
- Thousands of people flocked to mine sites in the Australian Alps, including Kiandra and Walhalla particularly after 350 kms of tracks were built to link the goldfields; and
- Seeds are primarily dispersed by gravity, wind, surface water movement, soil erosion, birds, ants, dung beetles and rodents, to name but a few sources of impact that are significant, compared to any caused by Wild Horses.

Please refer to Ref-3 for further information.

NRC - KEY STAKEHOLDERS IN FERAL HORSE ISSUES

NRC - *There is always a strong human dimension to feral horse management, given the place brumbies have in Australian folklore. Management techniques to control overabundance can draw equal amounts of criticism from animal welfare groups lobbying for their preservation, farmers who view them as a resource to be harvested, and conservationists concerned about their impacts on native habitats. Yet there are currently no peer-reviewed studies that focus on the social dimension of feral horse management in Australia (Nimmo 2007).*

We agree with this statement and would support targeted social dimension studies on Wild Horses.

NRC - *The solution to date has been to develop collaborative feral horse management plans, typically through a workshop process* (NSW National Parks and Wildlife Service 2008).

While NPWS NSW have had separate discussion between groups of differing views, during their long consultation process, views will remain polarised. The ABA supports the need for plans to be *developed collaboratively* because, until all key parties can sit around one table to gain consensus, management plans will remain polarised and swayed by politics.

NRC - MANAGEMENT OBJECTIVES AND TECHNIQUES FOR FERAL HORSES

NRC - *Aim of feral horse management is to reduce the damage caused to an acceptable level.*

> We support sustainable Brumby population in healthy environments. However to determine an "*acceptable level"* the damage caused by all species in an area and from natural elements e.g. severe wild fires, wind, frost, climate change etc. must be clearly identified through appropriate studies and then management objectives can be developed based on facts.

NRC - *Techniques currently used in NSW do not appear to be effectively managing numbers (and) the recent Worboys et al. (2015) report noted that 'current wild horse control actions in NSW and Victoria are inadequate, underfunded and inconsistent with Federal and State legal Responsibilities to protect threatened Australian species'.*

> NPWS's failure to sustain their effective trap rate of 670 Brumbies annually, has significantly compromised NPWS Wild Horse management strategies.

NRC – (Feral Horses) damaged *heavily disturbed wetland, Pilot Wilderness, Kosciuszko National Park, New South Wales, Australia.*

> Horses do not like wet ground, they like sure footings to retain their agility and to be able to easily flee from danger. Pigs love wet ground to root around in and to wallow in. What evidence does Worboys use to identify which species have contributed to the damage he refers to? What proportion, if any, of the damage is directly due to horses?

NRC - Worboys 2015 (page 506) talks of *old breeds of cattle and horses that mimic extinct herbivores roam the area and, together with beavers, deer and geese, control vegetation to improve spatial variety and create habitats for other species* [in Millingerwaard, the Netherlands.

The ABA **supports** the need to mimic extinct herbivores and sees the Australian Brumby as the closest herbivore to be able to mimic Australia's Megafauna such as;

- The giant short-faced kangaroo with a hoof-like toe that cut into soil and gave protection to growing native seedlings.
- Diprotodon optatum, Zygomaturus trilobus and Palorchestes azael weighing between 1,000-2,000 kgs and 9 species weighing 100-1,000 kgs. By comparison, Brumbies weigh around 550 Kgs. [Ref - http://en.wikipedia.org/wiki/Australian_megafauna].
- Procoptodon goliah weighed up to 230 kilograms. It had a flat shortened face with jaw and teeth adapted for chewing tough semi-arid vegetation, forward-looking eyes, stereoscopic vision and a hoof-like, fourth toe.

Please refer to **Ref-4** for further information.

In addition:

- studies overseas have shown that Wild Horses, in managed numbers, add to the ecology's bio-diversity ***[***refer to ***Ref-5];***
- we are concerned that those species already adapted to the broader bio-diversity niche that has evolved with Brumbies for around 200 years will be disadvantaged if Brumby levels drop below sustainable levels;

- the NPWS exclusion plots with highly inflammable dry tall grass inside the plots, surrounded by short green grass indicate what will happen if grazing animals are removed, the outcome of such action may have serious consequences to property and life.

Consequently there is an urgent need to do a thorough impact assessment before making changes, and to monitor and review results if changes are subsequently made.

NRC – *NPWS uses long-term monitoring enclosures to determine the impacts of introduced species such as wild horses in the Victorian Alpine National Park, Australian Alps*.

The use of long-term monitoring enclosures does not take into consideration firstly the many areas of park that are occupied by wild horses that do have healthy ecology and stream banks, and secondly the fact that wild horses do not generally occupy an entire park, for example they are only located in approximately 45% of KNP.

NRC - ***Aerial shooting*** – *Conditionally acceptable - Effective Relatively expensive, Can be cost-effective when horse density is high - Target-specific Suitable for extensive areas and inaccessible country. Most effective way of achieving quick, large-scale culling.*

We are **strongly opposed** to aerial shooting for the following reasons:

- it fails to meet the RSPCA definition of humane killing i.e. "when an animal is either killed instantly or instantaneously rendered insensible to pain until death supervenes";
- it is not possible to guarantee a kill, first shot, every time, when shooting horses, from helicopters, as they are a moving target, there are shifting downdraughts, and often vegetation to contend with;
- rough, steep, canopied terrain markedly increases injury risk & foal separation;
- it is impossible to ensure ground back-up can promptly kill each wounded horse; and
- more humane removal methods are available; e.g. passive trapping & fertility control.

Note; the RSPCA in 2002 laid 12 charges of cruelty against NPWS NSW for aerial culling undertaken in Guy Fawkes National Park (NSW) in 2000 [see next page for more detail].

NRC - ***Trapping*** – *Conditionally acceptable. Cost efficient method of capture.*

We **support** passive trapping as the preferred option where a need to lower Brumby numbers, to a specified level, in order to reduce impact levels that directly arise from Brumbies, has been proven and forms part of an overall species removal strategy.

NRC *class* - ***Mustering*** – *Conditionally acceptable*.

We **support** Slow Mustering, where the horses are moved forward at pace of the slowest horse, either by aerial or ground mustering, where a need is proven.

NRC *class* - ***Ground shooting*** – *Acceptable.*

We **reject** the ground shooting of unrestrained Brumbies because of the inability to follow up an escaping wounded horse and inability to gain a single kill head shot. [Please refer to Part 3. ABA submission to the ITRG for more detail]

NRC *class* **- *Immobilisation and lethal injection*** *– Acceptable*

We **reject** using tranquilisers and lethal injection on wild, unhandled horses for the purpose of killing them due to;

- the unnecessary stress caused by restraining the horse to safely inject it;
- horses being fearful of falling to the ground;
- brumbies requiring significantly higher tranquilliser dosage than domestic horses; and
- the lethal drugs used will enter the soil.

We **recommend** NPWS trapped Brumbies, unable to be collected by relevantly skilled rehomers, be euthanased at the trap site, by a head shot in an adequately screened knock box

NRC *class* **- *Fertility control*** *– Conditionally acceptable, not currently effective, expensive, and not practical for large-scale control.*

We **accept** fertility control as a humane option, such as PZP and GonaCon which can be accessed in Australia and administered by dart gun. We can access these two drugs that have been proven safe and are currently used overseas and applied at a cost of less than 5% of the costs NPWS quote to trap one Brumby [NPWS website $1,000 per Brumby]. Overseas applications are effective on groups of wild horses between 200 and 500 in size. [*see the ITRG ABA submission which is an attachment to this submission*]

We would also **recommend** that fertility control should be used to complement passive trapping programs, especially for Brumbies in hard to access areas or hard to trap areas.

NRC - *All control techniques proven to be effective should be available to bring populations to acceptable levels.*

We **reject** this statement, rather only the most humane option should be used. Any control method being considered must:

- ensure that, if management of wild horses is justified, any stress or injury risk is avoided and only the most humane option is selected;
- work to an agreed target population of sustainable, genetically viable, numbers;
- be consistent with the RSPCA definition of humane killing which is when an animal is either killed instantly or instantaneously rendered insensible to pain until death supervenes;
- ensure lethal methods are only used when all other, non-lethal, humane and effective alternatives that achieve management plan goals have been reviewed.

NRC - *However, an independent review of the protocols and procedures used in the operation subsequently found that the aerial shooting was both appropriate and carried out humanely* (NSW National Parks and Wildlife Service 2003).

We are very **concerned** regarding the inclusion of this statement within the document. The “independent” review failed to take into account that the RSPCA NSW reviewed 224 counts of cruelty and laid 12 charges of cruelty against NPWS NSW, to which the NPWS plea bargained to one account of cruelty and paid RSPCA’s costs.

NRC - *What constitutes a successful feral horse management program? Dawson et al (2006) suggest that feral horse management programs work well when they:*

- *are adequately resourced*
- *have clear objectives based on sound science, best practice guidelines and local knowledge (i.e. community)*
- *set control targets*
- *determine appropriate methodology*
- *consider the welfare of feral horses*

To *consider the welfare of feral horses* is not sufficient, Humaneness *must* be the top priority. We **recommend** that "only the most humane methods must be used" be added to the list.

NRC - *Good relationships with land owners, animal welfare groups, horse and conservation advocates, and professionals (such as horse handlers and scientists) are essential if a program is to be successful.*

We **agree** with this statement provided the professionals list be extended to include experienced Wild Horse rehomers.

NRC-*Future management plans for feral horses should balance the need to minimise impacts on sensitive ecological areas via population control, while also recognising the heritage value of horses across the wider landscape.*

We **agree** with the above paragraph.

NRC - *Any further changes to the management of feral horses across NSW, including using best practice management techniques, should be based on the research and consultation currently being undertaken for the Kosciusko Plan of Management.*

We have **significant concerns** regarding the research and consultation process being undertaken by NPWS for the Kosciuszko Draft Plan Of Management. In this regard please refer to ABA Part-3, response to ITRG report.

NRC - THE ISSUE - ONE PAGE HORSE IMPACTS AND MANAGEMENT SUMMARY WORDING.

It is requested the full draft and subsequent summary be updated taking into consideration the matters raised by the ABA above.

NRC - DRAFT REPORT (3) RECOMMENDATIONS

NRC - *The draft report recommends the NSW Government should finalise the work of the [ITRG] Independent Technical Reference Group and respond to the groups' findings.*

In this regard please refer to ABA Part-3, response to ITRG report.

NRC - *Feral horses should be removed in ecologically sensitive areas, using best practice management techniques after consideration of the recommendations of the ITRG panel.*

We **reject** this statement. Wild Horses should only be removed after comprehensive assessments have been conducted on all species that may impact on areas considered "sensitive", and an agreed, viable, sustainable population level is identified. Further clarification of what areas are considered "sensitive' should also be provided.

NRC - *The heritage value of feral horses should be recognised within the feral horse management program, and an acceptable feral horse population level should be maintained across the landscape.*

We **agree** the heritage value of Brumbies must be recognised within the park. However we are seriously concerned regarding the process used to determine what is an "acceptable" wild horse population. The NPWS draft plan, just released, will reduce the current wild horse population by 90%, ie from 6,000 to 600. This is totally unacceptable, and equates to a *manage to extinction* program.

The ABA strongly advocates for an acceptable population level that will ensure the Snowy Heritage Brumby will be ongoing and still around to show future Australians a living part of early settlement history.

Survival of robust Brumby populations is dependent on the ability for a wild horse population to roam free over at least 70% of the area they live in, which in the KNP is only 45% of the overall park. This is necessary to;
a. maximise the essential genetic mix,
b. maintain their social family groups, and
c. allow for a 64% (or higher) death rate such as occurred in the 2003 severe wild fire.

We trust the above will be given due consideration during the revision of the draft plan. Please do not hesitate to contact myself [redacted] or, Anne Wilson on [redacted] or mob: [redacted] if you have any queries regarding the above.

Kind Regards

J. Pickering

President, Australian Brumby Alliance Inc.
11-May-2016

References

Ref-1 Weed Dispersal

- Seeds are primarily dispersed by gravity, wind, surface water movement, soil erosion, birds, ants, dung beetles and rodents. http://www.bcha.org/media/uploads/2015/11/13/files/Gower2008_Forest_Ecology_Eastern_US_weeds-horses_full_article.pdf

- In the 1950s and 1960s Scotch or Spanish Broom, Lupins, willows and other exotic trees were introduced during the building of the Snowy Scheme. While NPWS was not involved in introducing these weeds, a major restoration program treating and removing these species is in place. [Reply by NPWS NSW to their online chat website query 2015]

- Hikers spread invasive plant seeds (2011) http://weedsnetwork.com/traction/permalink/WeedsNews1938

- Compares vegetation on Horse dungs. http://link.springer.com/article/10.1007/s11258-008-9468-0#/page-1

- Janzen is the researcher who has done the most studies on seeds in horse manure. http://www.americantrails.org/resources/wildlife/horseenvironment.html

Ref-2 Horse Manure is not toxic to humans

- Adda Quinn's manure paper https://www.bayequest.info/static/pdf/manure.pdf

Ref-3 Soil loss, compaction and erosion

- Detecting stream health impacts of horse riding and 4WD vehicle water crossings in South East Queensland: by Sally-Anne Redfearn, Wade Hadwen (Griffith School of Environment). Peter Negus, Joanna Blessing, Jon Marshall, (Water Planning Ecology, Qld Environment and Resource department)

- Fire Management in the Alpine Region; Vic Jurskis, Paul de Mar (Forests NSW) and Barry Aitchison (NSW Rural Fire Service).

- Invasive Species discussion paper Greater Alpine National Parks 2010 http://parkweb.vic.gov.au/__data/assets/pdf_file/0009/534096/Invasive20Species1.pdf

- Post http://www.depi.vic.gov.au/__data/assets/pdf_file/0007/192949/The-recovery-story-body.pdf

- 2003 severe fires recovery program by DPI Victoria. Asset Repair and Replacement Snowy Hydro-electric and irrigation scheme: A situational and critical analysis by Diane Cousineau and Nathan Cammerman. https://www.google.com.au/search?q=Kosciuszko+mining+erosion&ie=utf-8&oe=utf-8&gws_rd=cr&ei=51IEV-qIK8i30ASDioSoBQ

Ref-4 Megafauna
https://en.wikipedia.org/wiki/Australian_megafauna

Ref-5 How Wild Horses can increase bio-diversity

- The ecological forces—herbivory, physical impact, and deposition—of grazing ungulates have shaped natural grazing ecosystems around the world. Grazing ecosystems evolved with and depend upon herbivory, heavy hoof action, nitrogen deposits, and decomposing carcasses of large migratory ungulates. When introduced into ecosystems that did not evolve with frequent grazing, these forces can alter biological communities and ecosystem function.

  Grazing animals contribute to nutrient cycling by depositing nitrogen-rich urine and dung, and their carcasses can provide an important contribution to the food web and their hoof action, pawing, and wallowing, grazing animals trample plants, break up soil surfaces, incorporate seed into the soil, and compact soils.
  http://www.fws.gov/invasives/staffTrainingModule/methods/grazing/impacts.html

- Horse faeces contain less thoroughly decomposed vegetable matter than would a ruminant's which more greatly aid in building the nutrient-rich humus component of healthy soils. This leads to better water retention and nutrient level for root absorption. http://www.naturalhorse.com/archive/volume7/Issue3/article_5.php

- Manure from livestock may contribute as much as 35 % of soil organic matter [Steinfeld et al.1996] and helps maintain soil structure, water retention and drainage capacity.

- Organic components of faces and urine from grazing animals can build soil organic matter reserves, resulting in soils having increased water-holding capacity, increased water-infiltration rates, and improved structural stability. These changes can decrease soil loss by wind and water erosion (Hubbard et al. 2004).

- "When Livestock are good for the environment: Benefit-sharing of environmental goods and services" - Robin Mearns explains "The passage of herbage through the gut and out as faeces modifies the nitrogen cycle, so that grazed pastures tend to be richer in nitrogen than ungrazed ones".

- Grazers enhance mineral availability by increasing nutrient cycling within patches of their waste and increasing nitrogen availability to plants (Holland et al. 1992).

- http://www.agr.gc.ca/eng/science-and-innovation/agricultural-practices/soil-and-land/riparian-areas/grazing-a-natural-component-of-grassland-ecozone-riparian-systems/?id=1220563603657

- Niche construction, co-evolution and biodiversity. Laland, K.N.,, Boogert, N.J., Niche construction, co-evolution and biodiversity, Ecol Econ (2008), doi:10.1016/j.ecolecon.2008.11.014

  Why picking our battles helps save our species Viv & Ayesha Tulloch, ABC Environment 30 Apr 2015.

http://www.abc.net.au/environment/articles/2015/04/30/4226211.htm

- There is wide acceptance that grazing wetland sites can be a valuable tool in creating the right conditions for certain species to thrive. [Wicken Fen NNR/Carol Laidlaw] Carol Laidlaw is the conservation grazing warden working at Wicken Fen for the National Trust. Contact: National Trust, Wicken Fen NNR, Lode Lane, Wicken, by Ely, Cambs CB7 5XP; e-mail: carol.laidlaw@nationaltrust.org.uk; website; www.wicken.org.uk

- Livestock grazing is essential for the management of many of England's important wildlife habitats. Grassland, heathland, wood pasture, floodplain and coastal marshes all require some grazing to maintain the structure and composition upon which a variety of plants and animals depend for their survival. Livestock grazing plays a key role in maintaining species-rich habitats by controlling more aggressive species which would otherwise dominate these areas and by preventing scrub encroachment.

- Ponies preferentially graze grasses and generally avoid eating flowering plants, allowing them to thrive and multiply.
  http://www.wildlifetrusts.org/conservationgrazing

- The absence of grazing, open spaces will lose their rich diversity of plants and animals. Small fragile flowers and grasses will disappear as aggressive and competitive woody plants out-compete them for water and sunlight. Conservation Grazing email:cathy.wainwright@wildlifebcnp.org, The Wildlife Trust, Lings House, Billing Lings, Northampton, NN3 8BE Telephone: 01604 405285.

- Ponies are ideal for conservation grazing on heath and moorland. On wet grassland and wetlands, pony grazing is critical to maintain open, tussocky vegetation on which many rare species depend. Ponies instinctively avoid deep boggy areas and negotiate difficult terrain with ease. To find out more email admin@dpht.co.uk

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Thank you for the opportunity to provide feedback on NSW's Pest Animal Management draft plan released April 2016.

The Australian Brumby Alliance (ABA) Inc. was formed in April 2008. Its mission is to act as a National Body for the Recognition, Management, Preservation and Welfare of Australian Wild Horses (Brumbies). Member groups have developed a solid understanding of the skills and complexities required to collect Brumbies trapped by park removal programs, then gentle and rehome them. Rehomed brumbies are suited to a range of general equestrian activities including endurance riding, horse shows, children's ponies, carriage work and/or simply a family favourite.

ABA members have worked with park staff in New South Wales, Queensland, and Victoria to implement the most humane method of brumby population control, if respective park management plans require Brumby numbers to be lowered.

The ABA applauds the plan's comprehensive pest strategy and for acknowledging that Brumbies are seen by many as a cultural icon with strong cultural and historical importance.

ABA responses to the NCR draft report recommendations are below.

What are your reasons for support of the recommendations?

- We support a 'whole Pest Management' approach, because progress cannot be made by removing one pest species in isolation.

- We support ongoing management for sustainable Brumby Populations, because we strongly believe in the heritage values that Brumbies represent. Also, until Brumbies have heritage recognition, the pressure to remove them totally will remain. Australia without its horse heritage would deny future generations the ability to see a living part of our early settlement history and impact the many Aboriginals who also value the role Brumbies have played in their recent social history.

- We support euthanasia on site for passively trapped Brumbies, **IF** no peopled skilled in wild horse rehoming are able to collect them, because trucking un-handled Wild Horses, to abattoirs to be killed, increases the stress on the Brumbies unnecessarily.

- We support reintroducing Dingo populations as natural predator cascades, because this is nature's way to weed out the less robust Brumbies, and is far preferable to humans deciding who should live or die.

- We support the need to structure management on peer reviewed information, because current information used to manage Brumby populations is outdated and based on false, emotive assumptions.

- We support the urgent need for Brumbies to have heritage status, because without such a status, there is significant pressure placed on removing entire Brumby populations under current national park management plans which would deny future generations their living heritage.

- We support the need to conduct effective evaluation and reporting of outcomes, because without effective evaluation processes, how do we progress our *real* knowledge base, so that realistic solutions can be continually improved.

- We support the need for management to be adaptable to new knowledge and skills (such as conservation grazing), because it builds on the positive impacts *sustainable* Brumby numbers have provided to Australia's environment for the past 200 years.

- We support the urgent need to conduct robust research on, e.g. population dynamics, what causes these impacts, how to identify sustainable horse population levels that also support robust environments, etc.; because without well researched facts, we cannot provide an effective, transparent, holistic, management plan.

If any, what are your reasons for non-support of the recommendations?

- *Aerial culling and ground shooting free roaming Wild Horses*

  We do not support aerial culling and/or ground shooting free roaming Wild Horses because:
  - it fails to meet the RSPCA definition of humane killing i.e. "when an animal is either killed instantly or instantaneously rendered insensible to pain until death supervenes";
  - it is not possible to guarantee a kill, first shot, every time, when shooting horses, from helicopters, as they are a moving target, there are shifting downdraughts, and often vegetation to contend with;
  - rough, steep, canopied terrain markedly increases injury risk & foal separation;
  - it is impossible to ensure ground back-up can promptly kill each wounded horse; and
  - more humane removal methods are available; e.g. passive trapping & fertility control.

Further the any proposal to cull, either by aerial or ground shoot 90% of our Snowy brumbies will enrage the public as was the case at Guy Fawkes National Park in 2000. There are many Australian citizens who are incredible proud of the heritage Snowy Brumby, whose ancestors fought for us in several wars and enabled settlers to survive in Australia, and who gain immense pleasure seeing a free Snowy Brumby spirit living untamed and unfettered

- *Reduce red tape surrounding recreational hunting on private land*. (R-23)

  The ABA reject any move to ease licence requirements, because it is vital all hunters are required to be licensed, and to demonstrate they have the skill to humanely kill the animals they are licenced to hunt.

- *Enforcement to bait dogs etc*. (Page 42)

  We reject the use of bait for dogs, because bait results in an uncontrolled and painful death, and impacts non-target species i.e. it is not a humane option.

- *Risks of feral herbivores (deer, donkeys, horses, buffalo, goats, camels and cattle) spreading disease is of concern. They are difficult to survey and contain, and are potentially a highly mobile, widespread and long-term host of infection (Hampton et al. 2004).* (Page 47)

  In this regard for these species to become infected, the infection has to enter the environment, therefore the focus should be to prevent any infections being introduced. Furthermore, the ABA is not aware of any potential, highly mobile, widespread, long term infections having been identified in the species listed, to date.

- *7.4 Recreational hunting as a management tool*. (Page 94)

  We strongly reject this, because it is impossible to ensure compliance, and control will not be effective while the sports hunter needs their target game species to always be available to hunt.

What are your suggestions for improvement in pest animal management?

- Any method chosen for any species must put humaneness as the *first* priority, and the degree of cost effectiveness must never be placed above the most humane option.

- It is vital that people with skills to manage, gentle and rehome Wild Horses are involved in any consultation and Pest advisory bodies (where Brumbies are involved).

NRC Recommendations:
Reduce the impact of feral horses - The NSW Government should:

i. Finalise the work of the technical reference group and respond to its findings

We have provided initial feedback on the ITRG released only recently on 1-May-2016 in Part-3 of the ABA submission.

ii. *Remove feral horses in ecologically sensitive areas using best practice management techniques after consideration of the recommendations of the independent technical panel.*

We have provided initial feedback on the ITRG released only recently on 1-May-2016 in Part-3 of the ABA submission.

iii. *Recognise the heritage value of feral horses within its management program and maintain an acceptable population level across the landscape.*

We support this view, provided the population levels ensure genetic viability and allow for major catastrophes such as the 2003 severe wild fire that reduced the Brumby population by 64%.

We are extremely concerned that the draft NPWS management plan states that 90% of the Wild Horse populations in Kosciuszko national park will be culled, leaving a small population of 600 Brumbies.

Up to now, and as reflected in the ITRG (March 2016) report, NPWS dialogue has inferred "some" management, or to reduce numbers to an acceptable level through slowly reducing numbers and regular, science based, environmental assessments.

However the shock decision by NPWS to "*management"* to the excessively low level of 600 [400-800] Wild Horses in Kosciuszko National Park will result in *management to extinction*, not *management of sustainable, viable levels*.

The ABA strongly advocates for an acceptable population level of around 5,000 as suggested by Michelle Dawson on page 28 of the Parks Victoria "Greater Alpine National Parks" draft management plan, to ensure that the *Heritage Snowy Brumby will* continue to survive and show all future Australians a unique, *living* part of their early settlement history.

Survival depends on the ability of a Wild Horse population of around 5,000 [as recommend by Michelle Dawson [page 28 of the Parks Victoria "Greater Alpine National Parks" draft management plan], to roam free over at least 70% of the area they currently live in, which for KNP is still only 45% of the overall park, in order to;
A. maximise the essential genetic mix,
B. maintain their social family groups, and
C. allow for a 64% (or higher) death rate such as occurred in the 2003 severe wild fire.

It is vital to grasp that - the first severe wild fire to overtake a small population of 600 Brumbies will eliminate virtually all the remaining 600. Any remaining Wild Horses will not have adequate genetic robustness to overcome in-breeding, and so result in our Snowy Mountain Brumby heritage being *lost for ever*.

J. Pickering

Jill Pickering,
President, Australian Brumby Alliance Inc.

The Australian Brumby Alliance
ABN : 90784718191

Part-3
Submission to the Final Report of the Independent Technical Review Group - Supplementary to the Kosciuszko National Park Wild Horse Management Plan

Whilst not fully supporting all findings and recommendations the ABA would like to congratulate the Independent Technical Review Group on preparing such a thorough comprehensive report.

We would like to highlight that we support many of the findings in the report including those listed below to name a few:

- passive trapping and mustering in small groups has the lowest impact on animal welfare;
- funding PhD projects to undertake research on behavioural ecology, demography, movement ecology, habitat preference, would be beneficial;
- wild horses are culturally significant; and
- care should be taken not to extrapolate findings from high Alpine areas to all drainage line types or types of impacts in other habitats.

However we are very concerned about the obvious disregard to the key findings within the Draft KNP Wildhorse Management Plan.

Below outlines our key areas of concern.

Key Finding IV

We agree that too many of any species, including human, will eventually lead to unacceptable impact levels and therefore intervention methods are required. However the ITRG report infers that environmental harm is sufficient that wild horses must be managed, without showing what proportion of damage, if any, is caused directly by horses versus by pigs, goats, deer, rabbits and the range of pest animals listed in the NRC draft paper.

Key Finding VIII

Fertility control is proven safe and reliable, there can be negative social impacts to Wild Horse social structure, but they can be virtually eliminated by *best practice application*.

Key Finding IX

The ABA **supports** an integrated approach of control methods based on the assumption that Brumbies would continue to be located where they are currently found which only equates to 45% of entire KNP area.

The NPWS decision to cull Brumby numbers to 600 is in direct opposition to the ITRG view that adaptive decisions must be made after reviewing previous actions, and in particular the ITRG position that *surveys of environmental damage* (instead of just horse numbers) and robust measurement of its trends over time, should be applied in future.

Recommendation No. 5.

We would only support a combination of the following control methods passive trapping, fertility control, and buffer zones to protect a few sensitive areas. Trapped Brumbies, unable to be collected by suitable rehoming people, should be shot at the trap site, with suitable screening.

We do not support aerial shooting as an optional control method.

Section 2.1 Assessing Trends in Horse Numbers

We are very concerned that the population increase is based on just 'foaling to adult' survival rates without including the adult death rate, which anecdotally averages 10 years, and equates to 10%. This must be deducted from the foaling to adult survival rates to calculate the true population increase.

3. Do horses have an impact on park values?

The first paragraph in this section states that "*the balance of evidence indicates that wild horses are having a significant negative environmental impact is particularly true for alpine bogs, waterways and drainage lines, and that supposed positive environmental impacts are not supported by scientific evidence."* However the ABA has research which provides evidence of positive horse impacts and these were referenced in Part 1 of our submission.

The report then states that *"on the other hand, the ITRG recognises the cultural significance of wild horses in the region, as detailed in the Context (2015) report".* We fully support this statement.

3.1.2 Environmental impacts

To avoid repetition please refer to responses in Part-1 of our submission to the draft NRC Pest Animals Management review.

Further we would like to highlight that while the ITRG found the report 'An assessment of feral horse impacts on treeless drainage lines in the Australian Alps' prepared for NPWS in 2015 (Robertson et al. 2015) had substantial evidence to indicate that wild horses have a significant negative impact on small drainage lines at high altitudes, they also pointed out that;

- *Despite the study's encompassing of alpine and sub-alpine regions of Victoria, NSW and the ACT, it focuses only on treeless ephemeral drainage lines (Robertson et al. 2015) within those regions* and

- This focus should be noted and care taken *not to extrapolate* the findings across all drainage line types or types of impacts in other habitats.

3.1.4 Do horses have a positive ecological impact in KNP?

ABA has a collection of reports identifying that horses can and do have a positive impact on the environment. References for some of these reports are provided in Part 1 of our submission.

We do agree that a key factor is managing the horse numbers to an acceptable level.

3.2 What is the relationship if any between horse numbers and impact on park values?

We support the ITRG finding that impacts occur on multiple spatial scales, but usually need management at a local level. However we do not agree that all areas within KNP have such high conservation values that *any* damage is unacceptable. This observation follows field visits and the 2 day visit I attended with NPWS and other lobby groups.

4 If horses have to be removed, what methods are currently or potentially available?

The report states: *If lethal control is required, we found that best practice aerial shooting had the least potential adverse impact on wild horses, noting however that this is currently out of scope for KNP.*

Yet aerial shooting is proposed within the Pest Animal Management Review which we find very discerning, for the reasons we have already stated.

5.3.2 What is an acceptable density?

We support the ITRG finding in this regard, i.e. that once threshold population - impact levels are known, definite target densities can be set in different plant communities.

What we are concerned about is the seemingly non-negotiable level of 600 brumbies set by NPWS which has no regard for the ITRG findings regarding acceptable density measures.

5.10 What is the overall management objective?

The two step management objective utilising adaptive management principles is supported. However the draft KNP target level of 600 is not supported.

We are very concerned that when the next severe wild fire occurs all 600 brumbies may die or those that survive will become interbred and suffer abnormalities and other consequences of inbreeding. In the 2003 wild fire 64% of all brumbies died.

The 600 figure has no apparent scientific basis and gives the terms *integrated approach*, *different combinations of control methods* and *managing to agreed impact thresholds* a totally new meaning.

As we proposed in Part 1 of our submission - The short term could be to reduce the population to 5,000, and in the longer term work on impact level indicators (of all species) and conduct research on the ecology of horses in KNP

We trust you take the above into due consideration during your decision making processes affecting the future of the brumbies within KNP.

Kind Regards

Jill Pickering,
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This paper is an attachment to the ABA reply to the NRC Pest Animal Management Review

The Australian Brumby Alliance

ABN : 90784718191

Submission
To
The Kosciuszko National Park [KNP] Wild Horse Management Review
Independent technical reference Group [ITRG]
Queanbeyan 26-March-2015

Introduction: The Independent Technical Reference Group (ITRG) was established to review KNP wild horse numbers, distribution and their impact on Park values; advice on population controls, and horse management objectives, including horse population targets to protect the natural and cultural park values. Thank you for the opportunity to present this Australian Brumby Alliance submission.

A. Number/Distribution Kosciuszko National Park - ABA response

The ABA understands wild horse populations need to be managed in a way that maintains both their landscape's robustness *and* preserves their sustainable, long term genetic viability ***and*** provided that all source impacts are quantified before lowering horse numbers. Landscape recovery can only be achieved when all source impacts, such as; goats, rabbits, pigs and humans are lowered together.

Many areas in KNP show only nil, low or moderate impacts where horses live, however these are 'absorbed' seasonally, so not a long term threat to manage. Localised damage occurs near areas where horses and other species frequent, such as; exclusion fences, trap sites and river crossings.

The ABA recommends lowering horse numbers where impacts do not recover seasonally and provided *all* negative impacts are scientifically assessed to identify contributing impacts, such as; those from rabbits, pigs, goats and humans. Without rigorous assessment, money is wasted by lowering one species and leaving other contributing factors to continue their impacts.

In 2014;
- Wild horses occupied 300,000 ha of 690,000 ha of KNP (43 % of total KNP). *(NPWS website)*
- 57% of KNP is without horses. Of the remaining 43%, 6,000 horses live in 300,000ha *(NPWS website)* giving an average of 50ha/horse.

KNP 2001-2020 horse populations/removals;
- 2001: ACT/NSW/Vic (total ALPs) count estimated **5,200** horses *[Dawson 2009]*
- 2003: ACT/NSW/Vic count estimated **2,369** horses *[Walter 2003]*
- 2003 Total ALPs – 2500 KNP – **1500** Removed **49** (N*PWS website*)
- 2003 - 2006 Total ALPs – 5000 KNP – **2500** Removed **133** (*NPWS website*)
- 2006 – 2009 Total ALPs - 7679 KNP - **4237** Removed **362** (*NPWS website*)
- 2009 – 2012 Total ALPs - 9672 KNP - **4836** Removed **588** (*NPWS website*)
- 2012 – 2014 Total ALPs - tba KNP - **6000** Removed **1558** (*NPWS website*)
- 2020 - KNP population is projected to be **10,000** *(Ref:NPWS website)*

***Note**: Highest trapping rate NPWS have achieved to date is **670** in one year & with trap costs of $1.074/ horse*

ABA Observations on number/distribution in KNP

- Horse numbers in KNP are impacted by predators such as; dogs, snakes, severe snow dumps, catastrophic fires and removal under NPWS passive trap programs,
- The 64% population drop (2003) shows fire is a major predator of Brumbies,
- NPWS trapped a significant total of 670 Brumbies in one year, and
- Passive trapping has the capability to manage a population of 6,000 Brumbies.

B. Impacts on Park Values - ABA response

Two quotes from Lorraine Cairne's '*Summary of Significance*' p239;

- "Values of Kosciuszko National Park are of two types: the core values of natural and cultural heritage, and the derived values (e.g. social, recreational, tourism and economic) that depend on these core values." and
- "The park's importance is the sum of all the values of the park. All of these values are worthy of being conserved."

Brumbies enhance KNP park values, for example horses; increase soil water retention, nutrient levels and stimulate new growth by grazing rotation areas [*Craig Downer June 2010*]. People visit KNP to see horses living wild, either as individuals or as paying guests on tours, stimulating local business. Others visit to reflect on early European settlement history with horses in the land now called KNP.

Horses are accused of cutting into the land; others report their impacts are needed to *increase* bio-diversity. Inside Alpine exclusion plots, dense bio-mass is used to evidence the results of excluding grazers, other experts refer to the increased bio-diversity outside plots where grazing does occur. My observations do not suggest damage never occurs, but that emotion can influence both sides of this argument. The truth lies in-between and can be found using objective, scientific and comprehensive research upon which to create an effective plan that can respect all values found in the park.

Everyone has a personal view on the values to conserve in KNP. Below is a snapshot of how large herbivores, grazing across Australia, increased bio-diversity in pre-historic times and that being present once again in Australian parks can again increase bio-diversity.

- *Rambo and Faeth* found that the use of vertebrates for grazing an area would increase the species richness of plants by decreasing the abundance of dominant species and increasing the richness of rarer species. Species diversity of native plants was able to respond to grazing and increase diversity. The results of the short study showed that areas where grazers were removed had a lower diversity of native grasses, invertebrates and vertebrates in the pools, with an increase in non-native grass abundance and distribution in the area.

- Livestock affect vegetation communities through removal of biomass. This allows less competitive species to become established as dominant plant species are reduced. Trampling also creates areas of bare ground, which may be suitable for plant regeneration from seed or seedbanks and are beneficial for invertebrates and herptiles. Grazing and browsing physical impacts to vegetation from lying, rolling and pushing can also increase structural diversity. [http://www.grazinganimalsproject.org.uk/what_is_conservation_grazing.html]

- For historic grasslands, grazing animals and herbivores were a crucial part of the ecosystem. When grazers are removed, historically grazed lands may show a decline in both the density and the diversity of the vegetation. http://en.wikipedia.org/wiki/Conservation_grazing

- Australian Mega-Fauna, including the giant short-faced kangaroo with a hoof-like toe that cut into soil and gave protection to growing native seedlings (see below). Aso note; Diprotodon optatum, Zygomaturus trilobus and Palorchestes azael weighing b/w 1,000-2,000 kgs and 9 species weighing 100-1,000 kgs. [http://en.wikipedia.org/wiki/Australian_megafauna].

- *Procoptodon goliah* weighed up to 230 kilograms. It had a flat shortened face with jaw and teeth adapted for chewing tough semi-arid vegetation, forward-looking eyes, stereoscopic vision and a hoof-like, fourth toe. http://en.wikipedia.org/wiki/Australian_megafauna

Greenwell's veterinary report to the 2014 Alps National Park review advises;

- Herbivores have been present on all lands during the evolution of species. When herbivores are removed then plant species proliferate, for some this is advantageous but for others they cannot compete and are lost.
- Identify the population density level that serious damage occurs from.
- If trapping is operated in areas of higher population density then the resultant vacuum will attract other groups out of more remote areas.
- Final solution must take animal welfare to be the primary consideration.

C. Population Control methods - ABA response

After quantifying sustainable horse numbers, manage the population to that goal, using the most humane method to remove an agreed number of horses. Passive trapping is the most humane way to capture a Brumby since the horse is lured into the trap, with minimal handling, by skilled, calm, operators and minimal trap program injuries. Brumbies rehomed after passive trapping have the smoothest transition to domestic life and bond well to their new handlers.

Critical requirements the ABA expects of any control method are;

- The primary concern must be to ensure that, if management of wild horses is justified, any stress or injury risk is avoided and only the most humane option is selected.
- Measures to manage wild horse populations must work to an *agreed* target population of sustainable, genetically viable, numbers.
- RSPCA Australia defines humane killing as *when an animal is either killed instantly or instantaneously rendered insensible to pain until death supervenes*.(RSPCA website)
- Lethal methods must only be used when all alternative, non-lethal, humane and effective alternatives that achieve management plan goals have been reviewed.

Methods to control wild horse population *acceptable* to the ABA are;

1. Exclusion Fencing (Appropriate)

Provided fence is constructed to minimise injury or entrapment to KNP local fauna.

2. Fertility Control (Appropriate-needs to be trialled in KNP)

Fertility control is a non-lethal method applied to horses in America for several decades, and used in Australia on other species. Vaccines can now be imported and administered by dart gun without the need to trap first. The cost to use fertility control is low vs trapping.

Caution - Strict procedures must be established to ensure Brumby population fertility controls are humane, well-regulated and ensure Brumby populations are kept genetically viable.

3. Passive Trapping (Appropriate & preferred)
Passive trapping is the most humane capture method. NPWS KNP staff have developed an effective, humane trap process and recently trapped 670 horses in one year.

4. Low Stress ground/aerial mustering (Depending on trial may be appropriate) [*Appendix-1]*
This involves using horse riders or agile helicopters to manoeuvre the horses, no faster than the pace of the slowest horse in the group, into trap paddocks. Trials are needed to see if this this can become a humane alternative to passive trapping for example in remote KNP areas.

5. Post capture outcomes (Appropriate & preferred)
Rehoming with skilled people is the *only* non-lethal outcome. These groups have experience in how to gentle wild horses with the least stress during the transition from wild to domestic. Horses learn to accept a human's touch and ground handling to a level that it can be caught in an open paddock, led by the halter, have its feet picked up and float loaded to its new home.

NOTE: Brumby roping/running (humaneness is highly dependent on ropers skills & intent)
Victorian Alps 'Bulk or Contract' roping is neither humane nor effective. Roped horse stress levels are significantly higher than those passively trapped. One-off roping may assist small horse numbers in exceptional situations, when conducted by a rider that can humanely apply in this method.

Methods to control wild horse population *rejected* by the ABA are;

1. Transport to abattoirs (opposed)
Is ***not*** considered humane because;

- Time, stress and injury during travel and holding pens to death is unacceptable long. Wild horses should be only be transported in small/family groups by skilled rehomers.
- Trapped horses, unable be rehomed should be humanely shot on site with screens and knock box facilities to minimise stress to the next horse and each death confirmed before removal.
- Note: Euthanizing wild horses by injection is not considered appropriate due to the handling required to administer the injection which *significantly* increase stress/injury. However a wild horse injured and barely moving could be injected by a vet if no kill gun is available.

2. Ground shooting horses roaming free (opposed)
Is ***not*** considered humane because;

- The ability to achieve a clean kill shot is low,
- The shooter is unable to keep up to a bolting, wounded horse,
- A high flight response will result in adjacent horses scattering, and
- Surviving foals will starve to death.

3. Aerial shooting wild horses (opposed)
Is ***not*** considered humane because;

- It is not possible to guarantee a kill first shot every time when shooting horses, a moving target, from helicopters, a moving platform, through shifting downdraughts,
- It fails to meet the RSPCA definition of humane killing as *when an animal is either killed instantly or instantaneously rendered insensible to pain until death supervenes,*
- **Rough, steep, canopied KNP terrain** markedly increases injury risk & foal separation,
- It is impossible to ensure ground back-up can promptly kill each wounded horse, and
- More humane removal methods are available; such as passive trapping & fertility control.

D. KNP Management Objectives - ABA response

Management objectives should flow from the fundamental position that Bumbies, in *sustainable, viable* numbers, not causing enduring negative impacts, should continue living wild in KNP.

Legislation is often used to justify removing introduced species. However Aboriginals & Dingoes arrived centuries ago and more recently Post-Settlers & horses arrived. So, when does *introduced* become *indigenous*? Is it *time* or *survival based*? History shows adapting and resilience survive to become *indigenous*. That said we do need to find a balance so all values can be enjoyed in KNP.

NSW Legislation includes conserving *natural & cultural values*. *[Appendix-2]* The Burra Charter stresses *cultural significance* and the importance of community landscapes as to who we are, and, where such values are in conflict, plans need to be modified to better retain all diverse *cultural significance*. *[Appendix-3]*

The ABA recommends the following be addressed;

1. Conduct a comprehensive assessment of *all* threats and values in each KNP ecology type,
2. Prioritise management for KNP areas from *most* to *least* ecologically robust,
3. Section KNP into small, distinct management areas so the most appropriate method can be locally applied of all options available – different areas may need different solutions,
4. List and quantify all threats and values per area, for example from rabbits, pigs, goats, horses and humans,
5. Identify how many horses each area can support without losing integrity, and in particular
6. Identify competing threats, such as rabbits, pigs, goats, horses to be *reduced* alongside horse reductions, with the aim to maximise KNP's ecological robustness.
7. Conduct regular, systematic scientific research, such as listed in the 2008 KNP Plan, I.E.;
   - Partnerships with universities & interest groups to monitor long term effects,
   - Population assessments *(presumable of all threatened flors & fauna),*
   - Habitat use and impact on threatened species habitat,
   - Grazing trials and Weed transmission and erosion trends, etc.

In conclusion the ABA urges the new plan to embrace;

- Quantified, sustainable and viable horse populations continue living wild in KNP, in balance with native flora & fauna, for current and future generations to experience,
- Wild horse management plans that reflect the most humane methods available,
- Management plans that reflect both Pre & Post Settlement social heritage values, and if these values overlap, then a balance be found that respects the differing values.

Jill Pickering
President, Australian Brumby Alliance Inc.

Supporting material and a summary of the presentation may be left as hard copy with the Chair or emailed to joanne.knowles@environment.nsw.gov.au

ABA Submission to the KNP ITRG presentation 26-March 2015 - *Appendices*

Appendix-1

Written March 2015 by Jill Pickering, ABA President

My hosts to see Kaimanawa horses living wild on location were Major Hibbs, the Waiouru Military Commandant and New Zealand's *Department of Conservation* (DOC) Leith Rhynd and Bill Fleury.

Kaimanawa horse management decisions are now made by the *Kaimanawa Wild Horse Advisory Group* (KWHAG). The KWHAG includes representatives from a range of key interest groups, incl. the Army, DOC, KHH rehoming groups and conservation groups. Together, they develop and stay involved with management plans that DOC implements and fund. The 2014 muster gathered 162 horses, of which 147 were rehomed, leaving 300 plus horses to continue living wild on 25,000 Ha.

The total military area is about 63,000 Ha. The area containing flora vulnerable to horse grazing is separated by a buffer zone that each muster clears. Mountain ranges give a natural barrier to separate the horse populated third from the other two '*no go'* areas. Family mobs & colt groups graze in their allocated area unless numbers increase to a level that spills into the buffer zone. Experience shows in that a population level of 300 in Waiouru keeps the buffer zone virtually horse free. Populations are counted annually around March and results determine how many will be removed at the next muster, in order to bring the population back to just over the target of 300 horses (*or around 83/Ha*).

The biennial muster uses 3 helicopters that each operate alone to remove specific numbers of horses from pre-selected areas. One helicopter locates & moves one mob at a time at walking pace towards the collection trap adjacent to trap pens. Priority is given to remove all horses in the buffer zone. The collection trap area is surrounded on three sides with steep hills and a river running close to the trap yards. Each helicopter directs its mob slowly down tracks into the basin, and hessian lines are used to fill potential escape gaps. Once the mob is inside the collection trap yard the hessian 'gate' is closed. The helicopter then departs to find the next mob and helicopter 2 brings in its mob at walking pace.

Ground handlers then work the horses into different yards using low pressure techniques and keeping handlers and noise minimal. The horses are separated into yards of stallions, mares with foals and others, in readiness for the next mob to be brought in by another helicopter.

Vets, handlers and KHH rehoming group representatives check the horses and identify those not considered suitable for rehoming. Earlier musters focussed on rehoming younger horses; however more adult horses are now being successfully rehomed. Those not rehomed are sent to a nearby, pre-arranged, abattoir that can process them within 2 days of arrival.

The horses are trucked to one of four approved holding yards across North Island to deliver to people previously vetted by rehoming groups as having appropriate yards and skills to take horses direct from the wild. Although the sub collection point results in double loading stress for the horses, the time from wild to new home is within 2 days.

They key message I came away with was the knowledge that differing values *can* be worked through and produce a well-coordinated process that Kaimanawa horse welfare central to all plan decisions.

DOC staff also said KNP representatives are welcome to observe the muster from a special hessian covered hide on the hillside that does not raise stress levels in horses being mustered. I can provide DOC contact details if you are interested.

PTO for additional appendices

Appendix-2

NSW legislation balances conserving *nature* with conserving *cultural values*. The second and third objectives of the National Parks and Wildlife Act 1974 (NSW) focus on conserving cultural value within the landscape. Note: *Cultural* does not differentiate between Aboriginal or Post Settlement cultural values, and

Threatened Species Conservation Act 1995 (NSW) Objectives start with "Conserve biological diversity and promote ecologically sustainable development" and go on to refer to eliminating or *managing* certain processes that threaten the survival or evolutionary development of threatened species, populations and ecological communities.

Appendix-3

Burra Charter themes stress;

- *Cultural significance* means aesthetic, historic, scientific, social or spiritual value for past, present or future generations,
- Cultural significance enriches people's lives, often providing a deep and inspirational sense of connection to community and landscape, to the past and to lived experiences,
- Cultural significance reflects our community diversity, telling us who we are and the past that formed us and the Australian landscape. They are irreplaceable and precious,
- Cultural significance must be conserved for present and future generations in accordance with the principle of inter-generational equity,
- Consider all aspects of cultural and natural significance without unwarranted emphasis on any one value at the expense of others,
- Co-existence of cultural values should always be recognised, respected and encouraged. This is especially important in cases where they conflict, and
- It may be necessary to modify proposed plan changes to better retain cultural significance.

Please contact me on 03-9428-4709 or pickjill@hotmail.com if you have further queries.

End of appendices to ABA submission to the ITRG KNP 2015