



Senate Inquiry into the impacts and management of feral horses in the Australian Alps

Submission by the
Invasive Species Council

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About the Invasive Species Council

The Invasive Species Council was formed in 2002 to advocate for stronger laws, policies, and programs to keep Australian biodiversity safe from weeds, feral animals, exotic pathogens, and other invaders. It is a not-for-profit charitable organisation, funded predominantly by donations from supporters and philanthropic organisations.

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1 Executive Summary

“We can have healthy ecosystems, pristine waterways and abundant native wildlife in the Australian Alps, or we can have thousands of feral horses - we can't have both.”

- **Indigenous river guide and Invasive Species Council Ambassador, Richard Swain**

The Invasive Species Council appreciates the opportunity to make a submission to this important Senate inquiry into the impacts and management of feral horses in the Australian Alps.

In November 2008, the Australian Alps National Parks and Reserves were included on the National Heritage List. Then Federal Minister for the Environment, Heritage and the Arts, Peter Garrett declared that **the decision to list the Alps’ recognised “the outstanding natural, Indigenous and historic values of this iconic landscape.”**

This was a historic moment and an important environmental legacy. National Heritage listing under the Environment Protection and Biodiversity Conservation (EPBC) Act 1999 is meant to ensure that those special values will be protected forever at a federal level.

Sadly, those values are being rapidly degraded as increasing numbers of highly damaging feral horses’ trash and trample the sensitive alpine ecosystems of the Australian Alps.

Streams that were once lined by precious sphagnum moss are now scarred erosion channels. The habitat of critically endangered animals, like the northern corroboree frog and mountain pygmy possum, is being severely damaged. Rare alpine daisies and orchids that are found nowhere else in the world are directly at risk of extinction due to feral horse impacts.

As well as degrading the National Heritage values of the Australian Alps, a failure to control feral horses undermines other Commonwealth responsibilities, including:

- ensuring **the survival of at least 28 threatened species and two threatened ecological communities listed** under the EPBC Act
- upholding the Commonwealth’s specific **obligations under the UN Convention on Biological Diversity** for the protection and management of native biodiversity and protected areas
- **protecting the headwaters of the Murray and Murrumbidgee rivers** and the quality and quantity of Murray-Darling Basin water resources
- **meeting the goal of no new extinctions** under their Threatened Species Action Plan.

With adequate resources, appropriate methods, and consistent control, eradicating feral horses from the Australian Alps is possible. However, State Governments, and in particular the NSW Government, have consistently failed to implement policies and programs to effectively reduce feral horse numbers.

To uphold the Commonwealth’s clear responsibility to protect the wildlife, water and ecosystems of the Australian Alps, the Invasive Species Council submits that the Commonwealth Government must act to ensure the effective and urgent removal of feral horses.

If requested, the Invasive Species Council would be pleased to provide in-person evidence to the committee.

2 Recommendations to protect the Australian Alps

Recommendation 1: The NSW Government should repeal the *Kosciuszko Wild Horse Heritage Act* which prioritises feral horses over native wildlife in a National Park and undermines Australia's national and international environmental obligations.

Recommendation 2: The NSW National Parks and Wildlife Service should be empowered and resourced to carry out operations in Kosciuszko National Park consistent with a goal to eliminate feral horse damage through a significant reduction in numbers, prevention of their re-introduction and restoration of horse-damaged areas.

Recommendation 3: Federal, state and territory Governments should not adopt policies or management plans which include goals to retain feral horses or other invasive species in National Parks or other protected areas.

Recommendation 4: All jurisdictions should use the full suite of control tools available, ensuring they meet standard operating procedures and animal welfare requirements, to reduce the significant impacts of feral horses on the Australian Alps. This should include ground and aerial shooting by professionals.

Recommendation 5: Feral horse control programs in the Australian Alps should be multi-year, adequately funded, coordinated across agencies and tenures, and integrated with the management of other feral animals like pigs and deer.

Recommendation 6: The Federal Environment Minister should develop National Heritage management principles under the EPBC Act to require states and territories to effectively and urgently remove feral horses from the Australian Alps National Parks and Reserves National Heritage Place.

Recommendation 7: Australia's national environmental law should be reformed to ensure that 'actions' defined in law include a policy, plan, or program of a government where these relate to the management of National Heritage Places like the Australian Alps, as well as World Heritage Areas, or wetlands of international significance (Ramsar wetlands).

Recommendation 8: The Australian Government should develop a national feral horse Threat Abatement Plan to drive improved action, direct funding, and coordinate management.

Recommendation 9: The Australian Government should co-invest with state and territory governments in feral horse management in the Australian Alps, which is a priority place under the Threatened Species Action Plan.

Recommendation 10: Australia's national environmental law should be reformed to strengthen Australia's threat abatement system including:

- a. Enabling multiple threat abatement plans to be listed for listed key threatening processes
- b. Requiring the comprehensive listing of threats to matters of national environmental significance (MNES) on the advice of the Threatened Species Scientific Committee or an equivalent independent scientific body or process

- c. Classifying listed threats hierarchically as:
 - i. Key threatening processes – overarching processes such as habitat loss and invasive species.
 - ii. Threats of national environmental significance – more-specific threats within each key threatening process such as a particular invasive species
- d. On listing a threat of any category, requiring the Threatened Species Scientific Committee to prepare a statement about the actions (management, research) and instruments (plans, policies, regulations) needed to abate the threat (to the extent that it can be delisted)
- e. Streamlining the process for preparing threat abatement plans and recovery plans, and reducing the timeframes in which they must be finalised
- f. Better integrating threat abatement and recovery actions, including through new proposed recovery strategies
- g. The establishment of national taskforces for tackling major environmental threats
- h. Instituting an ‘emerging threatening process’ (ETP) category of threat to facilitate urgent or precautionary interventions.

Recommendation 11: The Australian Government should develop strong national environmental standards that:

- a. place a proactive obligation on managers of spatially defined Matters of National Environmental Significance (National Heritage places, World Heritage properties and Ramsar wetlands) for the effective protection of listed values and management of key threats
- b. require managers of spatially defined MNES to take action to prevent the exacerbation of key threatening processes, threats of national environmental significance (Rec 10), emerging threatening processes (Rec 10) and to implement relevant national threat abatement plans.

Recommendation 12: New ‘triggers’ should be established under national environmental law for assessment and approval of:

- a. actions that exacerbate a key threatening process; and
- b. actions that negatively impact on Australia’s system of national parks and reserves

Recommendation 13: The Commonwealth Government should fund an officer reporting to the Australian Alps Liaison Committee to focus on interstate collaboration and best practice for feral horse control. The position should provide a public report on measures to protect MNES from feral horse impacts.

Recommendation 14: The Australian Alps Liaison Committee should develop a multi-year strategy for feral horse management in the Australian Alps, that improves coordination and implementation of state-based strategies. It should:

- a. Prescribe Australian Alps-wide population targets, timeframes and required resources
- b. Support the full range of best practice control methods, including aerial shooting
- c. Implement ongoing monitoring and adaptive management
- d. Facilitate ongoing scientific and Indigenous cultural heritage research.
- e. Undertake public education and awareness campaigns regarding the impacts of feral horses on the environment and the need for their control
- f. Encourage effective integration with other vertebrate invasive species management
- g. Encourage coordinated vertebrate pest control with neighbouring land managers.

Recommendation 15: The Alps Ministerial Council should be reinvigorated to facilitate better management of the Australian Alps, protection of its national heritage values and a focus on the issue of feral horses and other hard-hooved invasive species.

Recommendation 16: The Federal Water Minister should investigate powers under the Water Act 2007 to ensure that feral horses are not damaging and polluting the catchments of the Murray and Murrumbidgee River.

Recommendation 17: The Murray Darling Basin Authority should undertake an assessment of the impact of feral horses and other hard-hooved invasive species on water quality and erosion and any actions required to prevent, mitigate, or repair the damage.

Recommendation 18: Feral horse removal should be coupled with investment in ecosystem monitoring and restoration through an integrated program of threat abatement and landscape recovery.

Recommendation 19: The Commonwealth should work with state and territory governments to develop a comprehensive ecosystem restoration plan for the Australian Alps that:

- a. identifies targets and timeframes for removal of invasive species and ecosystem repair
- b. invests in ongoing ecosystem restoration and monitoring

3 Background

3.1 The Invasive Species Council

The Invasive Species Council advocates for stronger laws, policies, and programs to keep Australian biodiversity safe from weeds, feral animals, exotic pathogens, and other invaders. We have considerable policy, community and on-ground knowledge and experience associated with the impacts of feral horses in Australia, particularly in the Australian Alps.

The Invasive Species Council is extremely concerned about the significant growth in the population and devastating impact of feral horses in the Australian Alps over recent decades and the failure of state governments to take adequate action. As a result, we have been directly engaged in raising political and community awareness of the issue and the solutions that are required. This has been particularly regarding Kosciuszko National Park in NSW.

As part of this work, the Invasive Species Council founded the Reclaim Kosci campaign in 2018, with the National Parks Association of the ACT, National Parks Association of NSW, Colong Foundation for Wilderness, and the Nature Conservation Council of NSW. This campaign is supported by over 20 community groups including the Australian Conservation Foundation, Bushwalking NSW, the Australian Wildlife Society, Native Fish Australia, and the Australian Association of Bush Regenerators

The Invasive Species Council has supported a broad chorus of community voices calling for action on feral horses, including:

- Over 100 scientists signing the Kosciuszko Science Accord
- More than 500 walkers involved in a 560km protest trek from Sydney to Mt Kosciuszko
- Over 12,000 people in 2019 and more than 15,000 people in 2021 signing petitions delivered to the NSW Parliament calling for action
- Aboriginal people from four major western catchments holding a historic Narjong Water Healing ceremony in the headwaters of the Murrumbidgee River



3.2 The values of the Australian Alps

“Containing most of the contiguous montane to alpine environments in Australia, the AANP supports a rich and unique assemblage of cold-climate specialist species... The AANP is a vital refuge for alpine and sub-alpine flora and fauna species... [It] has outstanding value to the nation for encompassing a significant and unique component of Australia's biological heritage.

“The AANP is a powerful, spectacular and distinctive landscape highly valued by the Australian community. The mountain vistas, including distinctive range-upon-range panoramas, snow covered crests, slopes and valleys, alpine streams and rivers, natural and artificial lakes, the snow-clad eucalypts and the high plain grasslands, summer alpine wildflowers, forests and natural sounds evoke strong aesthetic responses. Much of the terrain of the AANP is highly valued for its remoteness, and naturalness...”

- **Extract from the Commonwealth of Australia Gazette No. S237, 7 November 2008:
Inclusion of the Australian Alps National Parks and Reserves in the National Heritage List**

The Australian Alps National Parks and Reserves (Australian Alps) cover 1.6 million hectares of public land in eleven national parks and nature reserves. It includes the Kosciuszko National Park in NSW, Victoria's Alpine National Park, and Namadgi National Park in the ACT. Kosciuszko National Park is Australia's largest alpine park, spanning 690,000 hectares, and includes Australia's highest peak. It is visited by more than three million people a year.

The Australian Alps make up less than 1% of the Australian mainland and contain Australia's only mainland mountain peaks above 2000 metres. The Alps are one of eleven Australian sites recognised by the IUCN as a major world centre of plant diversity. The unique natural environment and indigenous cultural heritage of the Alps were integral to the National Heritage listing in 2008 under the EPBC Act. The Australian Alps contain glacial lakes, plateaus and peaks that are prominent and unparalleled in the Australian continent with extensive snow coverage on a seasonal basis.

The Australian Alps contain species and ecosystems that occur nowhere else on Earth and are unique in their evolutionary history. They are a vital refuge for more than 100 nationally threatened species and threatened ecological communities, ranging from iconic species such as the mountain pygmy possum and northern corroboree frog through to less well-known species of plants and animals, such as the Kiandra greenhood. The alpine bogs and fens in the region are a key evolutionary feature of the Alps and are critically important for maintaining water quality, regulating water flow, and providing habitat for unique plant and animal species.

The Australian Alps are also a special place for the Traditional Owners. Every summer for thousands of years, Aboriginal people crossed tribal boundaries and travelled hundreds of kilometres to meet on the highest peaks of the alpine region. They came from as far as the coast and the southwest slopes of the mountains for intertribal corroborees, settling of disputes, trading, marriages, and the initiation of young men. There are hundreds of registered archaeological sites, and the Australian Alps landscape is a vast area of tangible and intangible values to Traditional Owners and custodians today.

In March 2019, Yuin elder Uncle Max Harrison gathered Koori Elders and Clans in the Walgalu high country, in Kosciuszko National Park to perform the Narjong Healing Ceremony. The first of its kind in 150 years, it brought together men and women from across the country to the mighty Murrumbidgee River. This was a water ceremony to invoke the sacred duty of caring for the river systems, a tribal responsibility for thousands of years (NIT 2019). The ceremony was to show the damage done to Kosciuszko's delicate alpine wetlands by feral horses, in response to the passing of the *Kosciuszko Wild Horse Heritage Act 2018* (SMH 2019).

The Australian Alps contain the headwaters of some of Australia's greatest rivers, including the Murray, Snowy and Murrumbidgee. It has been estimated the Alps contribute an average of 9,600 gegalitres to the Murray-Darling Basin, or about 29% of the Basin's total annual flows. This water supports 2.1 million Australians and had an estimated economic value of \$9.6 billion in 2011.

3.3 The impact of feral horses in the Australian Alps

"New evidence of impacts by feral horses in Australia's alpine parks systems confirms they endanger threatened species and extensively damage critically endangered bog communities that could take millennia to recover. These impacts...accumulate over time, even when only a small number of feral horses (~100) are present."

- Driscoll, D.A., Worboys, G.L., Allan, H. et al. (2019) Impacts of feral horses in the Australian Alps and evidence-based solutions. *Ecological Management & Restoration*, 20, 63– 72.

Australia's ecosystems have evolved in the absence of heavy, hard-hooved animals such as feral horses. The current Alps-wide population of feral horses is estimated to exceed 20,000, with the vast majority of these estimated to occur in Kosciuszko National Park in NSW (over 18,500 at the most recent NSW government survey in 2022).

The impacts of feral horses are particularly severe in sensitive alpine ecosystems, where they are causing serious long-term damage (AAS 2021). Feral horses can destroy these delicate ecosystems through selective grazing, trampling, and pugging and compaction leading to the degradation of waterways and streambanks, the creation of bare ground and multiple track formation. Faecal matter from feral horses pollutes alpine streams and facilitates the distribution of weed seeds.

The observed direct impact of feral horses on the precious biodiversity values of the Australian Alps is alarming. In areas where feral horses are regularly present, it is common to see the complete destruction of alpine sphagnum moss beds, turning them into muddy holes. These impacts also alter the ecosystem processes governing water quality and supply for the sources of the Murray, Snowy and Murrumbidgee Rivers.

Restoration and recovery of these habitats, once feral horses are removed, will take decades, and require significant investment. Feral horses cause significant damage in areas that have been recently burnt in bushfires. These areas are at their most vulnerable stage and struggle to recover while being trampled and grazed by feral horses.

There are at least 28 threatened species listed under the EPBC Act in the Australian Alps where feral horses are identified as a direct threat to the survival of the species (See Table 1). This number is likely to be higher as updated information on species threats becomes available.

There are also two threatened ecological communities listed under the EPBC Act for which feral horses are identified as an ongoing threat - the endangered alpine sphagnum bogs and fens and the critically endangered river-flat eucalypt forest.

Feral horses have been listed as a key threatening process by the NSW Threatened Species Scientific Committee under the Biodiversity Conservation Act. 'Degradation and loss of habitats caused by feral horses' is listed as a potentially threatening process under the Victorian Flora and Fauna Guarantee Act 1988.

Feral horses can have adverse impacts on Aboriginal heritage sites, either by directly damaging culturally important attributes of the site or by exposing them to damage through the removal of vegetation by grazing and soil disturbance from trampling (Parks Victoria 2018). The environmental impacts of horses from trampling of streambanks and the creation of bare ground through grazing and wallowing will inevitably damage archaeological sites.

Disturbance to Aboriginal cultural sites by horses has been observed and recorded where feral horses are known to occur in moderate to high densities (Parks Victoria 2018). Concern around the physical damage caused to Aboriginal heritage sites by wild horses through trampling and erosion of physical sites (e.g., artefact scatters) was noted during the assessment of the community's understanding of park values and its views on wild horse management in Kosciuszko National Park (Straight Talk 2015).

The economic impact of feral horses is also severe. Analysis from Frontier Economics (Attachment 1) released in 2021 found that the failure to reduce feral horse numbers in Kosciuszko National Park is costing the NSW economy up to \$50 million a year.

Case study of an impacted species:

Broad-toothed Rat - *Mastacomys fuscus*

- Vulnerable: *Environment Protection and Biodiversity Conservation Act 1999*
- Vulnerable: *NSW Biodiversity Conservation Act 2016*
- Near Threatened: IUCN RedList



The broad-toothed rat is a native, chubby-cheeked mammal with long dense fur. They make their home in the dense vegetation of the alpine and sub-alpine regions of south-eastern Australia. They have a ringed tail and a gentle demeanour when handled.

Their distribution has been highly fragmented due to clearing for roads, ski runs and building developments. These mammals rely on high rainfall, cool summers, cold winters, and a dense ground cover of grasses, sedges, and shrubs. They live in a complex of runways through dense wet grass, sedge, or heath habitat, usually within 15m of a watercourse.

Feral horses occupying their small and specific habitat in the Australian Alps out-compete the broad-toothed rat for food (native grasses) and trample their remaining nesting areas. The presence of feral horses is directly related to the decline of broad-toothed rat populations. In areas of habitat severely impacted by feral horses, no evidence of this species was found at all.

Table 1: EPBC listed species and communities in the Australian Alps directly impacted by feral horses

EPBC listed flora (Total = 15 species)	EPBC Status
Mauve Burr-daisy (<i>Calotis glandulosa</i>)	V
Shining Cudweed (<i>Argyrotegium nitidulum</i>)	V
Kiandra greenhood (<i>Pterostylis oreophila</i>)	CE
Anemone Buttercup (<i>Ranunculus anemoneus</i>)	V
Monaro Golden Daisy (<i>Rutidosia leiolepis</i>)	V
Prasophyllum bagoense	CE
Brandy Marys Leek-orchid (<i>Prasophyllum innubum</i>)	CE
Kelton's Leek Orchid (<i>Prasophyllum keltonii</i>)	CE
Clover Glycine (<i>Glycine latrobeana</i>)	V
Rice flower (<i>Pimelea bracteata</i>)	CE
Pale pomaderris (<i>Pomaderris pallida</i>)	V
Feldmark grass (<i>Rytidosperma pumilum</i>)	V
Swamp everlasting (<i>Xerochrysum palustra</i>)	V
Brindabella midge orchid (<i>Corunastylis ectopa</i>)	CE
Pale Golden Moths orchid (<i>Diuris ochroma</i>)	V
EPBC listed fauna (Total = 13 species)	EPBC Status
Alpine Tree Frog (<i>Litoria verreauxii alpina</i>)	V
Broad-toothed Rat (<i>Mastacomys fuscus</i>)	V
Smoky Mouse (<i>Pseudomys fumeus</i>)	E
Southern Corroboree Frog (<i>Pseudophryne corroboree</i>)	CE
Northern Corroboree Frog (<i>Pseudophryne pengilleyi</i>)	CE
Alpine She-oak Skink (<i>Cyclodomorphus praealtus</i>)	E
Guthega Skink (<i>Liopholis guthega</i>)	E
Alpine bog skink (<i>Pseudemoia cryodroma</i>)	E
Spotted tree frog (<i>Litoria spenceri</i>)	CE
Stocky galaxias (<i>Galaxias tantangara</i>)	CE
Mountain Skink (<i>Liopholis montana</i>)	E
Kosciuszko Galaxias (<i>Galaxias supremus</i>)	CE
Dargo Galaxia (<i>Galaxias mungadhan</i>)	CE
EPBC listed ecological communities (Total = 2 communities)	EPBC status
Alpine Sphagnum Bogs and Associated Fens	E
White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland	CE

V = Vulnerable, E = Endangered, CE = Critically Endangered

4 The adequacy of state and territory laws, policies, programs, and funding

4.1 NSW

4.1.1 Overview

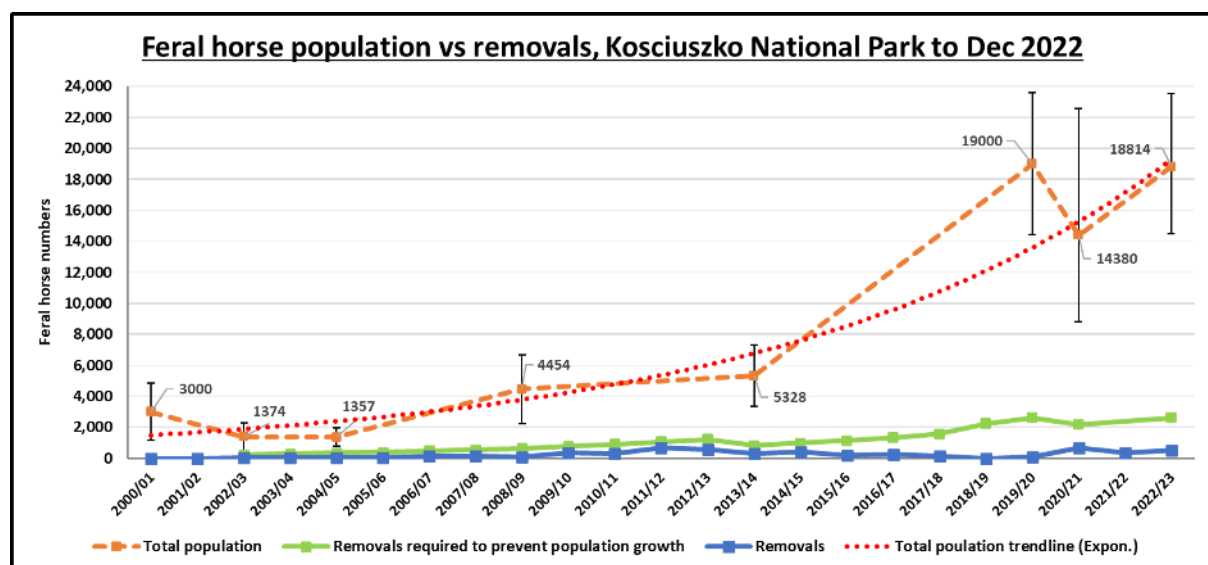
NSW has, by far, the largest population and density of feral horses in the Australian Alps. **NSW is also the only jurisdiction where feral horses are currently afforded legal protection inside a national park and national heritage place.**

The latest survey conducted by the NSW National Parks and Wildlife Service (NPWS) of feral horse populations in Kosciuszko National Park **found that there are an estimated 18,814 horses.** The survey had a 95% confidence interval of between 14,501 and 23,535 feral horses (NSW Government 2023). This represents an increase of more than 30% in just two years - rising from an average estimate of 14,380 in spring 2020 (NSW Government 2020).

Delay, inaction, and inadequate control efforts have seen the feral horse population in Kosciuszko National Park increase consistently over the past two decades at an **average annual growth rate of 15 per cent per year.** The only meaningful population reductions occurred following severe bushfires in 2002/3 and 2019/20. The population recovered rapidly following these events and continued to grow.

Removals have consistently been well below the population growth rate, and thus insufficient to control the growth or spread of feral horses. All removals by NPWS prior to 2022 were through passive trapping and removal to knackery or rehoming. At least 300 feral horses were trapped and then re-released in 2020.

Aerial control is not permitted in NSW for feral horses. This is despite it regularly being used for other feral animals such as deer and pigs in NSW, including by NPWS staff in Kosciuszko National Park. Extensive aerial control of feral animals is also undertaken by the NSW Local Land Services for on other land tenures, including private and crown land.



4.1.2 Timeline of feral horse management in Kosciuszko National Park

- In 2003, the first horse management plan was released and there were an estimated 2-3000 feral horses in the park. This population halved after the 2003 bushfires to around 1-2000.
- In 2008, a new Kosciuszko National Park Horse Management Plan was released. The feral horse population was estimated to be about 4000 in 2009.
- In 2014, the feral horse population was estimated to be about 5,300.
- In 2016, a new Draft Wild Horse Management Plan was developed. It proposed an ambitious reduction of the feral horse population to 600 in reaction to the alarming population growth. This was not adopted.
- In 2018, 'Habitat degradation and loss by feral horses' was listed as a key threatening process under the NSW Biodiversity Conservation Act by the NSW Scientific Committee (NSW TSSC 2018).
- The Kosciuszko Wild Horse Heritage Act 2018 was enacted in June 2018 to protect a sustainable population of wild horses in Kosciuszko National Park and led to a pause in feral horse removal while its consequences were being deliberated.
- In 2019, NPWS aerial horse survey estimated the feral horse population to be about 19,000
- Following severe bushfires in 2019/20, a 2020 NPWS population survey estimated a reduction to 14,380 feral horses in the park.
- Between 2002 and 2020 only 3620 feral horses were removed from the park.
- The 2021 Kosciuszko National Park Wild Horse Heritage Management Plan was approved in November 2021. The plan set a target for the reduction of horses in the park to 3,000 by 30 June 2027. Horses are to be retained after 2027 in three horse retention areas, which make up 32% of the park.
- Feral horse removals under the new management plan commenced in February 2022, with 859 horses removed in 2022.
- The 2022 aerial horse survey estimates conducted by NSW NPWS estimates that there are about 18,814 horses in the park - this represents an increase of more than 30% in just two years despite the commencement of the new management plan.

4.1.3 The current management plan in NSW

The *Kosciuszko Wild Horse Heritage Act* became law in June 2018. The Act requires the NSW Government to develop a management plan to identify and protect "the heritage value of sustainable wild horse populations within identified parts of the park".

The Act explicitly prioritises the management of feral horses over and above the natural environment and native wildlife. It constrains the management activities of the NSW National Parks and Wildlife Service by stating that a management plan "prevails to the extent of any inconsistency between the adopted plan and a plan of management" developed under the NSW National Parks and Wildlife Act 1974. After years of inaction and delay, a management plan was finally approved in November 2021.

The 2021 Kosciuszko National Park Wild Horse Heritage Management Plan:

- sets a target for the reduction of horses in the park to 3,000 by 30 June 2027.
- envisions these 3,000 feral horses being retained in the park beyond 2027 in three horse retention areas, which make up 32% of the park - a level that will still see ongoing degradation of ecosystems and wildlife in the National Park.
- provides for the use of trapping and rehoming, trapping and transport to knackery, aerial mustering, and ground shooting, but rules out the use of aerial shooting.

Feral horse removals under the new management plan commenced in February 2022, with 859 horses removed in 2022. This is well below the population growth rate required to keep the population stable, let alone reduce it in line with the management plan.

The removal methods for 2022 have not been publicly released, but a November 2022 [independent evaluation of animal welfare outcomes of NSW horse control operations](#) found that:

- Animal welfare outcomes are prioritised and are better than predicted, as confirmed by independent veterinary observations.
- There was no evidence of non-kill shots having been taken, nor of foaling mares being shot.
- Standard Operating Procedures are rigorously followed.
- All personnel have welfare as a priority.
- NPWS procedures reflect input from external experts and the RSPCA.
- Aerial shooting can have low negative welfare outcomes (i.e., good welfare outcomes) when conducted in accordance with best practice and should be reconsidered if the plan fails to meet targets.

4.1.4 Meeting the goals of the NSW management plan

The Invasive Species Council has been provided with independent modelling regarding the expected feral horse population depending on the rate of removal achieved by the NSW Government.

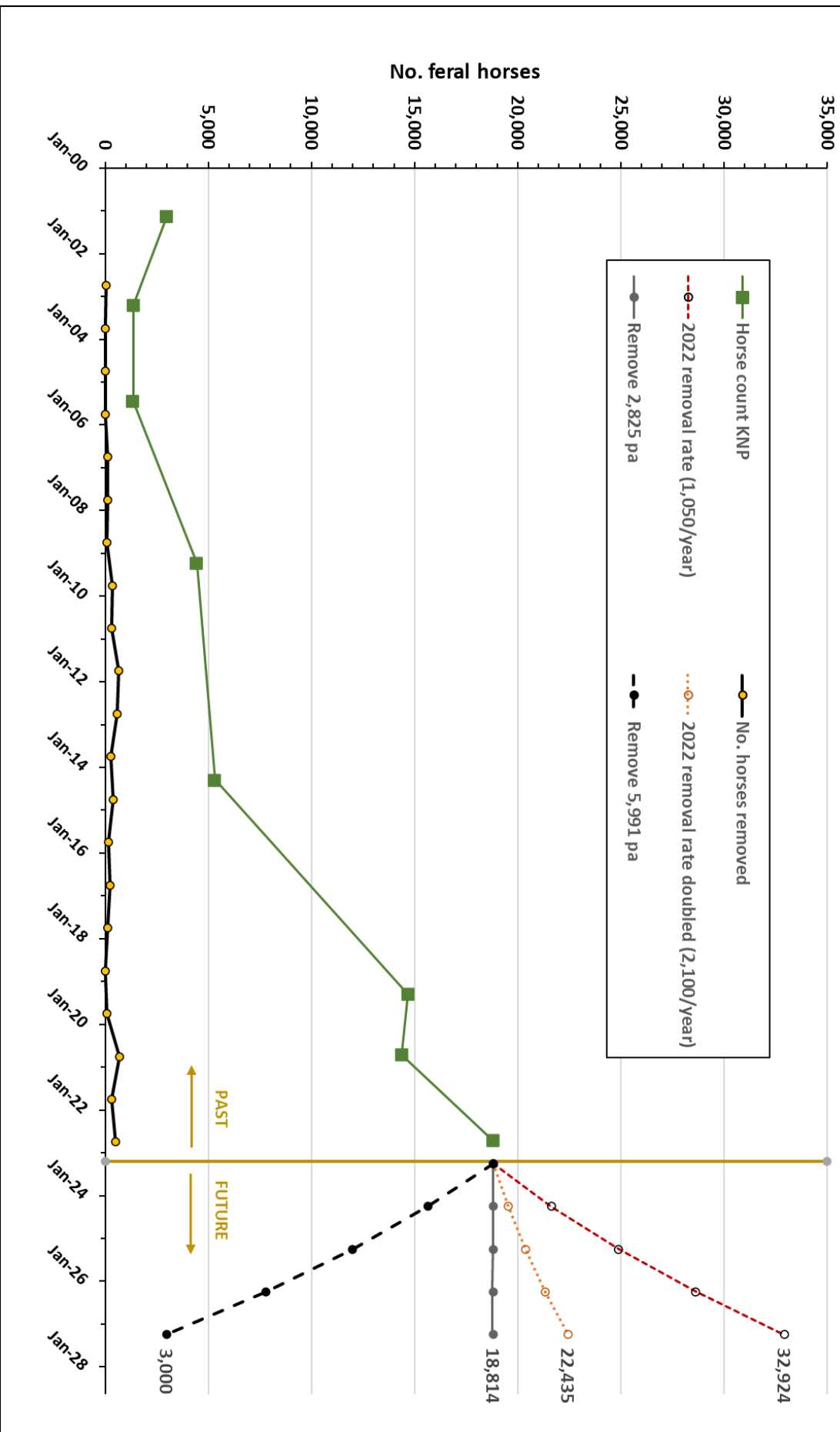
The modelling is based on an annual population growth rate of 15%, which is the average growth rate since 2003. It assumes that business as usual in NSW would be an annual reduction of 1,050 horses per year¹.

The modelling finds that:

- At the current rate of removal of 1,050/year, the population could reach ~32,900 by 2027.
- Just to keep the population stable (i.e., stop the population from growing), 2,825 horses will have to be removed every year.
- To reach the target population of 3,000 by 2027, 5,991 horses will have to be removed annually.
- At a higher 18% annual population growth rate, 6,419 will have to be removed per year to reach 3,000 by 2027.
- Delaying action will increase the cost, damage and number of horses killed. For example, a 3-year delay in reaching 3,000 will mean an extra 6-7,000 feral horses have to be removed.

¹ Based on the most recent NPWS figures of 525 removed for the second half of 2022.

Feral horses in Kosciuszko National Park: Future population scenarios based on different removal rates and continuation of 15% annual population growth observed since 2003



4.2 ACT

The ACT portion of the Alps, including Namadgi National Park and Tidbinbilla Nature Reserve, are currently feral horse free, although incursions from NSW occur, especially from northern Kosciuszko. Control of feral horses is undertaken under the Namadgi National Park Feral Horse Management Plan 2020.

The fact that the ACT Alps remain feral horse free, despite adjoining northern Kosciuszko, which has some of the largest feral horse populations, is significant. It both demonstrates that action can be taken to routinely control feral horses, but also the ongoing and substantial risks to jurisdictions that are acting. In effect, NSW is cost-shifting part of its feral horse control burden to the ACT with each incursion into Namadgi National Park.

The ACT Government should be commended for its routine and effective approach to integrated feral ungulate management, using an array of control tools appropriate to the situation and terrain. This includes the use of ground and aerial shooting to ensure the effective management and protection of the ACT Alps. It has a zero-tolerance approach to feral horse incursions and is transparent in its intent and operations.

4.3 Victoria

4.3.1 Overview

Feral horses in the Victorian Alps occupy two separate portions of the parks, the Eastern Alps, which extend up to the NSW border with Kosciuszko National Park, and the Bogong High Plains in Alpine National Park.

Current estimates of feral horses in the Eastern Alps are 2,456, with 95% confidence interval of the population being between 1,088 and 4,186 (Parks Victoria, 2023). Previous Australian Alps wide surveys conducted prior to the 2020 bushfires estimated the population exceeded 5,000. The 2021 survey was carried out after bushfires severely burnt much of the area inhabited by feral horses in the eastern Alps, so the population reduction is not unexpected.

Current estimates in the Bogong High Plains are 252 feral horses, with a 95% confidence interval of the population being between 195 and 350. In 2018 surveys on the Bogong High Plains identified 109 horses (95% CI: 107-123) and 52 horses in 2012 (95% CI: 51-57). This represents a 130% rise in the population the past 5 years and an almost five-fold increase in the past decade.

4.3.2 The current management plan in Victoria

Feral horses in the Victorian Alps are managed under the Protection of the Alpine National Park Feral Horse Action Plan 2021. The plan does not adopt numerical targets as the NSW plan does, but does set overall objectives, including:

- prevent new populations of feral horses from establishing across the area; remove isolated populations of feral horses where eradication is feasible
- contain and reduce feral horse numbers in core, larger populations in the Alpine National Park to prevent the spread and minimise impacts on high-value vegetation communities and fauna habitats
- consider all control options and use the most humane, safe, and effective techniques, including lethal and non-lethal methods

- cooperate with the NSW National Parks and Wildlife Service to remove populations from adjacent forest areas and Kosciuszko National Park.

The plan provides for the deployment of a range of control measures including trapping and rehoming and ground shooting. The plan notes that “independent experts consider ground shooting as the most humane, safe and effective method available and is an acceptable technique for the removal of individual, or small groups of horses from a location, when performed by skilled operators who hold the appropriate licences and accreditation.”

The plan also provides for the use of aerial shooting in ‘exceptional circumstances’. Noting the complexity of terrain, particularly in the eastern Alps, aerial shooting is likely to be a necessary tool to effectively drive down feral horse populations. In evidence to the Supreme Court, Parks Victoria confirmed that they have not and are not currently contemplating conducting any aerial shooting operations in the Alpine National Park to control feral horses (*Australian Brumby Alliance Inc v Parks Victoria, 2023*).

Parks Victoria has not publicly released information about the numbers of feral horses removed annually from the Alpine National Park. Under questioning at a recent Victorian Supreme Court hearing, Parks Victoria stated that the number of feral horses shot and killed in three operations between August and October 2022 ‘would probably be in the tens’ (*Australian Brumby Alliance Inc v Parks Victoria, 2023*).

There are some key strengths to the Victorian approach, including commitments to the eradication of small or isolated populations and the inclusion of several key control measures.

A major limitation of the Victorian plan is the absence of specific targets for feral horse reduction, particularly in the Eastern Alps.

4.4 Recommendations for state and territory laws, policies, programs, and funding

Recommendation 1: The NSW Government should repeal the *Kosciuszko Wild Horse Heritage Act* which prioritises feral horses over native wildlife in a National Park and undermines Australia’s national and international environmental obligations.

Recommendation 2: The NSW National Parks and Wildlife Service should be empowered and resourced to carry out operations in Kosciuszko National Park consistent with a goal to eliminate feral horse damage through a significant reduction in numbers, prevention of their re-introduction and restoration of horse-damaged areas.

Recommendation 3: Federal, state and territory Governments should not adopt policies or management plans which include goals to retain feral horses or other invasive species in National Parks or other protected areas.

5 Best practice approaches to population reduction

5.1 Overview

With good planning, adequate resources, appropriate methods and consistent control, significant reduction and ultimately eradication of feral horses from the Australian Alps is possible. However, every year that control is delayed or deferred will increase the number of animals required to be removed and the cost of an effective control program.

It is abundantly clear that the NSW, and probably Victorian, governments have made little or no progress on driving down feral horse population and impacts in the Australian Alps. This lack of progress will continue to be the case while aerial shooting is not being utilised, parks staff are being harassed by dangerous and offensive behaviour by some in the community that don't support feral horse control and so-called passive methods such as rehoming and fertility control are being promoted as alternatives.

Trapping and rehoming of feral horses has been used in the Australian Alps for well over a decade. It has consistently failed to reduce the population, has delayed meaningful action and is expensive. There are too many feral horses in the Alps and not enough demand for rehoming for it to be relied upon for the reduction of the population.

Fertility control as a management tool is only effective for a small, geographically isolated, and accessible population of feral horses where the management outcome sought is to maintain the population at its current size. It is not a viable option to reduce the large and growing feral horse population in the vast and rugged terrain of the Australian Alps.

For a feral horse control program to be effective it must be multi-year, utilise a range of tools with a consistent commitment to adequate resources to ensure reductions are above the population growth rate (about 15-20% per year for feral horses in the Alps). Given the terrain of the Australian Alps, effective reduction of feral horses will rely on integrated invasive species management and humane ground and aerial shooting.

5.2 Planning

Feral animals like horses and deer do not respect property boundaries, land tenures or state and territory borders. This means that effective population control needs to be cross-tenure, cross-border and coordinated. Failure to do so will lead to re-introduction, increased costs, and ineffective control.

Feral horse control in the Australian Alps has suffered from a lack of coordination between management agencies, and adjacent private and crown land managers regarding planning and implementation of control.

Planning for feral horse control in the Australian Alps should focus upon:

1. Identifying areas where feral horses must be prevented from establishing
2. Eradicating smaller and isolated populations and protecting key environmental assets
3. Containing feral horses to an area where the population can be driven down over time

4. Coordination of timing, resources, and approach among relevant government agencies and/or with neighbouring private and crown land managers
5. Concentrating resources and focus early to reduce the numbers required to be removed over time and the environmental impacts
6. Integrating feral horse control programs with programs to control other pest species, like feral deer and pigs.

5.3 Control Methods

The Australian Alps is a vast area of mostly rugged terrain and wilderness areas. High peaks and steep forested slopes are interspersed with open high grasslands and herbfields. Access by vehicle is limited in many areas. This terrain is challenging for invasive species management and, as such, a range of methods are required to be effective. There are several humane, proven, and efficient methods available to control feral horse numbers.

5.3.1 Shooting is best practice

Shooting by professionals is the most humane and cost-effective way of culling the feral horse population. There are established codes of practice and standard operating procedures in place that, if followed, ensure a safe, clean, and humane kill in the field (Sharp 2011, Sharp 2016).

Professional shooters have access to technology such as thermal imaging devices and suppressors that ensure efficiency. This is best practice to ensure the animal is quickly dispatched in the wild.

By contrast, being chased or trapped then transported, often for long distances over rough tracks, to sale yards, holding pens for selective rehoming or, in most cases, to be ultimately killed in an abattoir, can be distressing and slow. Live capture is also very expensive and hazardous for the operator.

5.3.2 Ground shooting

Ground shooting by professional pest controllers is an important tool to humanely cull feral horses, where access makes this feasible. This is particularly applicable to the more open plains in the Australian Alps.

A recent independent animal welfare review of the NSW Government's feral horse control management plan for Kosciuszko National Park found that for ground shooting:

- "The Standard Operating Procedure has been followed in detail, and the implementation has resulted in better than expected welfare outcomes (<1% of horses not killed immediately), which has been verified by a highly skilled independent observer."
- "The welfare outcomes are better than predicted based on best practice by the AWA. The skill of the operators was key to this success."
- "There was no evidence of non-kill shots having been taken".

Ground shooting provides a humane and cost-effective way of reducing or removing feral horses and is an essential tool for feral horse control.

5.3.3 Aerial shooting

“Animal welfare assessments advise that, if undertaken in accordance with best practice, aerial shooting can have the lowest negative animal welfare impacts of all lethal control methods (Kosciuszko Wild Horse Scientific Advisory Panel 2020; ITRG 2015).”

- **from the 2021 Kosciuszko National Park Wild Horse Heritage Management Plan**

Aerial shooting is an effective method for controlling or eliminating feral horses in remote and inaccessible locations, particularly where feral horse densities are high. Helicopters provide the opportunity for professional shooters to locate horses to secure a quick and humane kill.

Aerial shooting is the only feasible option to cull large numbers of dispersed feral horses in otherwise inaccessible regions of the Australian Alps. It is doubtful that feral horse numbers will be effectively reduced, or even kept at a stable population, in the Australian Alps without aerial shooting.

Aerial shooting of feral horses is a primary control method for extensive feral horse populations in the Northern Territory (NTG 2015), Queensland (QGBQ 2016) and Western Australia (KRBA 2016). In the Australian Alps, feral deer, pigs, and goats are currently controlled through aerial shooting. The ACT also deploys aerial shooting of feral horses.

In an assessment of the cost-effectiveness of various feral horse control methods in the Australian Alps, aerial culling was found to be three to six times cheaper than mustering (and trapping). It was also more effective in every scenario modelled. The results unequivocally suggest aerial culling as the most cost-effective strategy to effectively control horses within the range of currently realistic scenarios (Beeton & Johnson 2019).

Trapping and live removal of feral horses cost over \$1,116 per horse in Kosciuszko National Park (OEH 2016), while aerial shooting was estimated to be \$85.50 per horse if used in the Australian Alps (Beeton & Johnson 2019) and found to be \$143 per horse when used at the Singleton Army Base (Newcastle Herald 2019).

The Australian Veterinary Association puts forward that (free range) shooting of feral horses is considered more humane than capture and removal as the animals are not subject to the stresses of mustering, yarding, and long-distance transport (AVA 2018).

Aerial culling is demonstrably a cost-effective and humane option for feral horse control when carried out in accordance with established best practice protocols and operating procedures. While some in the community will never accept aerial shooting as a control measure for feral horses, it is shown that general community concerns or anxiety can be moderated if people are properly informed of the facts and evidence and involved in decision processes (OEH 2015).

5.3.4 Trapping and transporting is poor practice

Live trapping and transporting have been the main method of feral horse control deployed in the Australian Alps to date. Live trapping is time consuming, expensive, and risky for the operators. Traps are also easily and routinely interfered with by those opposed to feral horse control.

Feral horses are frequently injured during the trapping process and transporting feral horses is stressful for otherwise wild animals. Trapped horses are then yarded, with some possibly sent for

rehome but the majority sent to be killed in an abattoir. This process is not best practice for the welfare of the animal, the safety of controllers, or the cost of the operation.

In areas of high feral horse populations, with good road access for floating or trucking horses, trapping, and transporting may be a feasible option. The clear evidence to date is that it has been ineffective in reducing numbers.

5.3.5 Trapping and culling is an option

Once feral horses are trapped, they may also be euthanised on site. This is particularly used where humane transport options are limited. This may be an option in areas of high feral horse populations, where luring horses to traps and humanely euthanising them on site is more effective than shooting in the open. Trapping may be assisted by aerial mustering of feral horses into trap yards or paddocks.

5.3.6 Trapping and rehoming is expensive and not an effective control method

Trapping and rehoming of feral horses has been used in the Australian Alps for more than a decade. It has consistently failed to reduce the feral horse population. Aside from the logistical difficulties and costs, the demand for captured feral horses to be rehomed is too low relative to the required annual removals from the feral horse population.

Feral horses are often poorly bred and in bad condition. Offering captured feral horses for rehoming is also expensive and stressful for the horses being trapped and transported. There may be cases for rehoming where there are reliable rehoming options for selected horses, but this is a social program and not to be confused with a control program.

5.3.7 Fencing (Asset protection) is not an alternative to eradication

Where important high value natural or cultural assets are being impacted heavily by feral horses it may be necessary to fence areas until the feral horse population can be eradicated. Fencing is expensive to build and maintain and unsightly in an otherwise outstanding natural environment.

This should be a temporary measure only and not an alternative to population reduction.

5.3.8 Fertility control is not viable

Fertility control as a management tool is only effective for a small, geographically isolated population of feral horses where the management outcome sought is to maintain the population at its current size. It is not a viable option to reduce the feral horse population in the Alps.

Fertility control agents can be used to manage reproduction rates of individual horses if the agent can be administered effectively, and individual horses can be identified and re-treated when required. It is generally only practical in small, confined populations where horse densities are already low, and the objective is to gradually reduce or maintain the population at a low density. Fertility control as a sole management approach for reducing feral horse population size is not an effective strategy (Hobbs & Hinds 2018).

5.3.9 Animal welfare

In an assessment of the overall welfare impact of all the known feral horse control methods carried out for the review of the Wild Horse Management Plan for Kosciuszko National Park, aerial shooting was found to have a moderate overall welfare impact when carried out using best practice methods.

Live capture by trapping is also moderate but the loading and transport of wild horses over long journeys was assessed as having a severe impact on overall welfare of horses (OEH 2014).

Of the in situ lethal control methods assessed, aerial shooting under a 'best practice scenario' has the lowest overall animal welfare impact (ITRG 2016).

5.4 Recommendations for best practice approaches to population reduction

Recommendation 4: All jurisdictions should use the full suite of control tools available, ensuring they meet standard operating procedures and animal welfare requirements, to reduce the significant impacts of feral horses on the Australian Alps. This should include ground and aerial shooting by professionals.

Recommendation 5: Feral horse control programs in the Australian Alps should be multi-year, adequately funded, coordinated across agencies and tenures, and integrated with the management of other feral animals like pigs and deer.

6 Commonwealth Powers and Responsibilities

6.1 Context

The Commonwealth has a significant range of powers and responsibilities that are relevant to the protection and management of the Australian Alps. These powers and responsibilities are mainly vested within the EPBC Act 1999, the Water Act 2007, and the Australian Alps Memorandum of Understanding.

The constitutional authority of the Australian Government to act on feral horses, and other threats to biodiversity, in the Australian Alps is clear. The Australian Government has explicit responsibilities through the Australian Constitution's external affairs powers (section 51 (xxix)) to ensure Australia meets its obligations under relevant international treaties. In this case, the most relevant international treaty is the United Nations Convention on Biological Diversity and specifically Article 8 of the convention.

The relevance of the CBD and Article 8 to the management of feral horses in the Australian Alps was highlighted in the judgement for *Australian Brumby Alliance Inc v Parks Victoria Inc 2020*. The court found that controlling feral horses were key actions undertaken by Parks Victoria that give effect to Australia's Article 8 obligations under the CBD.

The Australian Government must effectively use these powers to protect the outstanding national heritage and water catchment values of the Australian Alps from the impact of feral horses.

6.2 EPBC Act 1999 and Matters of National Environmental Significance

Australia's national environmental law, the Environment Protection Biodiversity Conservation (EPBC) Act 1999, is designed to protect matters of national environmental significance. The Australian Alps has a significant number of matters of national environmental significance.

6.2.1 National Heritage

The Australian Alps National Parks and Reserves were listed under the EPBC Act as a National Heritage Place in 2008. The unique natural environment of the Alps was integral to the National Heritage listing. The Alps are one of only eleven sites recognised in Australia by the International Union for the Conservation of Nature (IUCN) as a major world centre of plant diversity.

The EPBC Act 1999 provides for the making of management plans for National Heritage Places (EPBC Act 1999 s324Y) and the making of **National Heritage Management Principles** (s324X) as regulations set out under the Act.

Section 324X (2) of the EPBC Act requires that:

'The Commonwealth must use its best endeavours to ensure a plan for managing the place, that is not inconsistent with the National Heritage management principles, is prepared and implemented in co-operation with the State or Territory.'

Specifically, s324Y (2) provides for the Commonwealth to *'prescribe obligations to implement or give effect to the National Heritage Management Principles'*.

In 2020, in *Australian Brumby Alliance Inc v Parks Victoria Inc*, the federal court explicitly rejected the contention that the ongoing presence of feral horses are part of the National Heritage values of the Australian Alps. The court accepted the evidence that feral horses cause substantial environmental damage.

In 2021, the Australian Government wrote to NSW indicating that it considered the state government was failing in its obligations to protect the National Heritage values of the Australian Alps National Parks and Reserves National Heritage Place from feral horse damage. The Australian Government indicated that it was pursuing the development of specific regulations under the EPBC Act that oblige protected area managers to take specific action on feral horses.

6.2.2 Nationally listed threatened species and ecological communities

The Australian Alps are home to more than 100 EPBC listed threatened species and threatened ecological communities (DCCEEW 2023). Our analysis of the threats to these species has identified that **at least 28 threatened species and two threatened ecological communities are directly impacted by feral horses**. Feral horses are also acknowledged as a key threat under the EPBC Key Threatening Process *Novel biota and their impact on biodiversity*.

6.2.3 UN Convention on Biological Diversity

The Commonwealth Government has specific obligations under the UN Convention on Biological Diversity for the protection and management native biodiversity and protected areas. Specifically, Article 8 (h.) of the CBD requires that each state party shall: *Prevent the introduction of, control or eradicate those alien species which threaten ecosystems, habitats, or species*.

In December 2022, the Kunming-Montreal Global Biodiversity Framework was finalised. This included specific goals and targets for the prevention of the extinction of native wildlife (Goal A, Target 4), the management of protected areas (Target 3), the management of invasive species and prevention of their impacts (Target 6) and for the restoration of native ecosystems (Target 2).

Target 6 specifically calls for ‘eradicating or controlling invasive alien species especially in priority sites’ by 2030. Notably, the Australian Alps is identified as one of the priority areas within the national Threatened Species Strategy and would fulfil the definition of a priority site for this purpose.

Unless there is a significant change in the management of feral horses in the Australian Alps, it is highly unlikely that Australia will meet one or more of these global biodiversity targets.

6.3 Threatened Species Action plan

The Commonwealth government has set a goal of no new extinctions under their Threatened Species Action Plan. Additionally, it has identified the Australian Alps as one of its priority places for threatened species recovery. A number of priority threatened species under the action plan are also found in the Australian Alps.

Noting the abundance of nationally listed threatened species within the Australian Alps and the significant number that have been identified as being directly threatened by feral horses, there is a clear need for action on feral horses if threatened species within the Australian Alps are to be effectively protected and recovered.

Importantly, in the absence of concerted action on invasive species pressures within the Australian Alps, the Commonwealth will struggle to meet its goal of no new extinctions and recovery of the ecological values of this landscape.

6.4 Water Act 2007

The Australian Alps contribute significantly to south eastern Australia's water yield and quality. In particular, the Australian Alps contain the headwaters of the Murray and Murrumbidgee Rivers. It has been estimated the Alps contribute an average of 9,600 gigaliters to the Murray-Darling Basin, or about 29% of the basin's total annual flows.

Feral horses are having a devastating impact on these critically important high catchments with consequences for water quality and yield. Removal of feral horses from catchment areas in Namadgi National Park has been shown to have increased the quality of water downstream.

Under the federal *Water Act 2007*, the Commonwealth Government has obligations to:

- address threats to Murray-Darling Basin water resources
- promote the use and management of the Basin water resources in a way that optimises economic, social, and environmental outcomes,
- protect, restore, and provide for the ecological values and ecosystem services of the Basin
- ensure that the management of the Basin water resources takes into account the broader management of natural resources in the Basin.

Hume Dam is the main supply storage and one of the two major headwater storages for the Murray River system. The Murray Darling Basin Agreement (established under the Water Act 2007) contains explicit provisions for the protection of its catchment, which includes a significant portion of the Australian Alps.

The Murray Darling Basin Agreement requires the Governments of New South Wales and Victoria to 'take effective measures to protect the portions of the catchment of the Hume Reservoir within their respective States from erosion' (see Part VII, s51). Significant areas of the catchment of Hume dam are impacted by feral horses, along with other invasive hard-hoofed species, and the impacts on water quality should be more clearly evaluated by the MDBA.

6.5 Australian Alps National Parks Co-operative Management Program

The Australian Alps National Parks Cooperative Management Program has been in place since 1986. It is formalised through a memorandum of understanding (MOU) between ACT, NSW, Victoria, and the Commonwealth. The vision for the program is to achieve excellence in protected area management across the Alps, including the protection of the unique mountain and cultural values and landscapes, protection and restoration of mountain catchments and amelioration of the effects of climate change.

Under the MOU there is an Australian Alps Liaison Committee (AALC) in which each state is represented by a senior officer which aims to facilitate the development, coordination, and implementation of cooperative management programs for the Alps. This forum provides an opportunity for greater collaboration, coordination and focus on the issue of feral horses and other hard-hoofed invasives in the Alps.

The MOU initially included a Ministerial Council that signed off the MOU. This no longer exists which has reduced the power and Ministerial visibility of the MOU.

6.6 Recommendations for Commonwealth powers and responsibilities

Stronger National Heritage Management Principles under the EPBC Act

The EPBC Act provides for the making of management plans for National Heritage Places and the making of National Heritage Management Principles. These management principles have failed to address the impact of feral horses on the national heritage values of the Australian Alps. Strengthening the National Heritage Management Principles was a key measure flagged by the previous federal government, but ultimately not acted upon.

Recommendation 6: The Federal Environment Minister should develop National Heritage management principles under the EPBC Act to require states and territories to effectively and urgently remove feral horses from the Australian Alps National Parks and Reserves National Heritage Place.

Strengthen the definition of an 'Action' under national environmental law

Sections 523, 524 and 524A of the EPBC Act outline what is and is not considered an action respectively for the purposes of the referral, assessment, and approvals functions of the Act. The legislation is silent on the assessment of plans of management, but s524A outlines that government authorisations are not 'actions' for the purposes of the EPBC Act.

It is critical that the Commonwealth has recourse and a mechanism to intervene in circumstances where a plan of management for a particular EPBC listed place is unlikely to protect or restore key values of that place, or where such a plan would likely lead to the ongoing decline of EPBC listed values or to harm matters of national environmental significance.

Recommendation 7: Australia's national environmental law should be reformed to ensure that 'actions' defined in law include a policy, plan, or program of a government where these relate to the management of National Heritage Places like the Australian Alps, as well as World Heritage Areas, or wetlands of international significance (Ramsar wetlands).

Develop a National Threat Abatement Plan for Feral Horses and strengthen our national threat abatement system

Australia has 400,000 feral horses - the largest feral horse population in the world. There is a clear need for improved management of feral horses across the country. They are not only a threat to the Australian Alps, but also a threat to the Ramsar listed Barmah Forest and World Heritage areas including the Blue Mountains, Kakadu, and Gondwana Rainforests of Australia.

In 2013, the Australian Government listed the *Novel biota and their impact on biodiversity* as a key threatening process (DCCEEW 2013). The listing covered a range of invasive species, including feral horses. Despite being captured under the Novel biota key threatening process, we understand that current interpretations of the EPBC Act mean that only one Threat Abatement Plan may be issued for a single key threatening process. This has rendered the Novel biota listing largely ineffectual.

It is critical that both a Threat Abatement Plan is developed for feral horses and that our national threat abatement system is made more efficient, effective, and fit for purpose.

Australia is the only country to have a formally listed threat abatement planning process established under national environmental law. Our threat abatement system could be a powerful tool for saving threatened species, preventing the decline of more species, and returning ecosystems to health and resilience. But the system is under-resourced, being applied poorly and is hamstrung by limited threat response options.

Strengthening Australia's threat abatement system is essential to overcome Australia's extinction crisis. Abating major threats to biodiversity is the only way to stop more and more species from becoming threatened and, in conjunction with species-specific recovery actions, to stop threatened species from heading towards extinction.

A stronger threat abatement system is particularly important for mitigating invasive species impacts.

Recommendation 8: The Australian Government should develop a national feral horse Threat Abatement Plan to drive improved action, direct funding, and coordinate management.

Recommendation 9: The Australian Government should co-invest with state and territory governments in feral horse management in the Australian Alps, which is a priority place under the Threatened Species Action Plan.

Recommendation 10: Australia's national environmental law should be reformed to strengthen Australia's threat abatement system including:

- a. Enabling multiple threat abatement plans to be listed for listed key threatening processes
- b. Requiring the comprehensive listing of threats to matters of national environmental significance (MNES) on the advice of the Threatened Species Scientific Committee or an equivalent independent scientific body or process
- c. Classifying listed threats hierarchically as:
 - i. Key threatening processes – overarching processes such as habitat loss and invasive species
 - ii. Threats of national environmental significance – more-specific threats within each key threatening process such as a particular invasive species
- d. On listing a threat of any category, requiring the Threatened Species Scientific Committee to prepare a statement about the actions (management, research) and instruments (plans, policies, regulations) needed to abate the threat (to the extent that it can be delisted)
- e. Streamlining the process for preparing threat abatement plans and recovery plans, and reducing the timeframes in which they must be finalised
- f. Better integrating threat abatement and recovery actions, including through new proposed recovery strategies
- g. the establishment of national taskforces for tackling major environmental threats

- h. Instituting an ‘emerging threatening process’ (ETP) category of threat to facilitate urgent or precautionary interventions.

Develop strong national environmental standards and new triggers for Commonwealth intervention under national environment laws

The Australian Government has announced an overhaul of our national environmental laws through its Nature Positive Plan, centred on the development of a set of National Environmental Standards.

The Government has stated that “*the standards will apply to all decision-making under national environmental law and be administered and enforced by an independent Environment Protection Agency (EPA). They will also have a normative effect, informing and guiding non-regulatory activities*” (DEECCW 2022).

It will be critical that this intent is realised if national standards are to deliver ‘nature positive’ outcomes, especially in relation to improving the management of key MNES. Strong national standards will provide a clear signal to protected area managers on expected conservation outcomes and management expectations.

Much of Australia’s conservation efforts and successes are centred on the protected area estate, particularly in national parks and reserves. While many serious invasive threats to protected areas have come from the natural spread of long-established species, others have arisen from the deliberate planting or release of invasive species in the vicinity of protected areas. Establishing a ‘national parks trigger’ under national environmental law was a long-held policy of Australian Labor, both in government and opposition (ALP 2018).

Recommendation 11: The Australian Government should develop strong national environmental standards that:

- a. place a proactive obligation on managers of spatially defined Matters of National Environmental Significance (National Heritage places, World Heritage properties and Ramsar wetlands) for the effective protection of listed values and management of key threats
- b. require managers of spatially defined MNES to take action to prevent the exacerbation of key threatening processes, threats of national environmental significance (Rec 10), emerging threatening processes (Rec 10) and to implement relevant national threat abatement plans.

Recommendation 12: New ‘triggers’ should be established under national environmental law for assessment and approval of:

- a. actions that exacerbate a key threatening process; and
- b. actions that negatively impact on Australia’s system of national parks and reserves

Strengthen and reinvigorate the Australian Alps National Parks Cooperative Management Program

The Australian Alps MOU and Co-operative Management program provides a sound basis for multi-agency cooperation and collaboration over feral horse control. However, it has lost authority due to

the Alps Ministerial Council being disbanded and the Alps management agencies have largely gone their own way with feral horse policy.

The lack of a dedicated staff resource for feral horse coordination at a national level is also impeding cooperation and collaboration.

Recommendation 13: The Commonwealth Government should fund an officer reporting to the Australian Alps Liaison Committee to focus on interstate collaboration and best practice for feral horse control. The position should provide a public report on measures to protect MNES from feral horse impacts.

Recommendation 14: The Australian Alps Liaison Committee should develop a multi-year strategy for feral horse management in the Australian Alps, that improves coordination and implementation of state-based strategies. It should:

- a. Prescribe Australian Alps wide population targets, timeframes and required resources
- b. Support the full range of best practice control methods, including aerial shooting
- c. Implement ongoing monitoring and adaptive management
- d. Facilitate ongoing scientific and Indigenous cultural heritage research
- e. Undertake public education and awareness campaigns regarding the impacts of feral horses on the environment and the need for their control
- f. Encourage effective integration with other vertebrate invasive species management
- g. Encourage coordinated vertebrate pest control with neighbouring land managers.

Recommendation 15: The Alps Ministerial Council should be reinvigorated to facilitate better management of the Australian Alps, protection of its national heritage values and a focus on the issue of feral horses and other hard-hooved invasive species.

Explore opportunities under the Water Act 2007

One of the key objectives of the Water Act 2007 is to protect water quality as part of delivering environmental outcomes in the basin. Noting one of the key impacts of feral horses is on the health of waterways in the Australian Alps, the significance of the region to water resources across the Murray Darling Basin and the subsequent impacts on water quality, there is an important body of work to be undertaken to better understand the potential downstream impacts on water quality in the basin arising from invasive species, including feral horses, in the Australian Alps.

Recommendation 16: The Federal Water Minister should investigate powers under the Water Act 2007 to ensure that feral horses are not damaging and polluting the catchments of the Murray and Murrumbidgee River.

Recommendation 17: The Murray Darling Basin Authority should undertake an assessment of the impact of feral horses and other hard-hooved invasive species on water quality and erosion and any actions required to prevent, mitigate, or repair the damage.

7 Measures to repair and restore native habitats

7.1 Overview

Restoration and recovery of the sensitive and unique habitats impacted by feral horses in the Australian Alps will take decades once the feral horses are removed, with some potentially unable to recover naturally without intervention. This will be expensive and time-consuming, but necessary. Hard hoofed feral herbivores like horses and deer have had a significant negative effect on post-fire regeneration and restoration in the Australian Alps following the 2003 and 2019-20 bushfires.

Lessons can be learned from the restoration of alpine habitats following the removal of cattle in NSW and much later, in Victoria. Significant investment was made to assist the sensitive environments such as high alpine slopes and alpine peatlands to recover from trampling and grazing by heavy hard hoofed animals. This investment is being eroded by the failure to manage feral horses today.

The most cost-effective approach is to avoid damage in the first place by investing in control of invasive species while their population is small, and spread is limited. This will have the best long-term benefits for taxpayers, land managers, ecosystems, threatened species, Indigenous heritage, park visitors and the feral horses themselves.

7.2 Recommendations for measures to repair and restore native habitats

Recommendation 18: Feral horse removal should be coupled with investment in ecosystem monitoring and restoration through an integrated program of threat abatement and landscape recovery.

Recommendation 19: The Commonwealth should work with state and territory governments to develop a comprehensive ecosystem restoration plan for the Australian Alps that:

- a. identifies targets and timeframes for removal of invasive species and ecosystem repair
- b. invests in ongoing ecosystem restoration and monitoring

8 Conclusion

Thank you for the opportunity to provide input into the Senate Inquiry into the impacts and management of feral horses in the Australian Alps. We hope these comments and recommendations will be considered constructive for formulating the recommendations of the Senate Inquiry.

We would appreciate the opportunity to provide in-person evidence if the committee decides to hold hearings.

The Invasive Species Council looks forward to a concerted policy and on-ground effort by all jurisdictions in the Australian Alps, along with the Commonwealth, to significantly reduce the population, spread and impact of feral horses in the Australian Alps and responsibly manage their outstanding and legislated national heritage values.

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