



SUBMISSION TO

Impacts and management of feral horse in the Australian Alps

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Victorian National Parks Association (VNPA) Submission April 2023

Thank you for the opportunity to provide information and knowledge into the Senate Standing Committee on Environment and Communications inquiry into the Impacts and management of feral horses in the Australian Alps.

The Victorian National Parks Association (VNPA) is an independent member-based organisation, working to improve protection of Victoria's biodiversity and natural areas, across land and sea. The VNPA has been actively working to protect Victoria's biodiversity for 70 years.

We note the Inquiries term of reference are restricted to the Australia Alps,
https://www.aph.gov.au/Parliamentary_Business/Committees/Senate/Environment_and_Communications/FeralHorses47 however we note there are feral horse infestations in other parts of Victoria, which also impact on matters of national environmental significance, including RAMSAR sites such Barmah National Park. We have included information on this issue for completeness.

This submission is organised around the terms of reference for the inquiry. We have concentrated mostly on the Victorian context but do discuss implications of Federal laws and some aspect of the NSW approach to Feral horses.

Summary:

- The numbers of feral horses in these areas number between 2,000 -5,000 in the Eastern alpine region, 50-100 in the Southern Bogong High plains both within the Australian Alps and 600- 800 horses in the Barmah National Park and creating significant disturbance and damage to natural ecosystems.
- Victoria has a solid strategy for control of Feral horses and Victoria has made significant progress in putting in place plans and program for control of feral horses. Action has however been delayed on multiple occasions and need additional resourcing to ensure the program is ramped up and control is effective.
- The NSW Kosciuszko National Park Wild Horse Heritage Management Plan, will undermine Victoria efforts to reduce feral horse numbers due to the location of wild horse retention zone adjacent to Victorian boarder.
- Feral horses are listed as impacting at least 25 threatened alpine flora and 14 threatened alpine fauna species, including the broad toothed rat and rare alpine orchids.
- Feral horses disrupt natural ecosystem functioning and damage habitats and water catchments in the Alps by: trampling, track creation, soil compaction, wallowing, erosion of streambanks, sphagnum bog and wetland destruction and overgrazing.
- While all effective option should be used depending on the circumstance, fertility control
 and trapping and rehoming are not viable options for feral horse population reduction due
 to the size and geographic spread of the current population in the alps and the lack of
 sufficient rehoming options.

- Ground and aerial shooting are humane and effective control options, and the RSPCA has stated that, depending on circumstances, both ground and aerial shooting can deliver better animal welfare outcomes than trapping followed by transport to a knackery.
- Early and substantial resources and investment is needed to have the best long-term benefits for tax-payers, land managers, ecosystems, threatened species, Indigenous heritage, park visitors and the horses themselves.
- Rapidly reducing feral horses in the Alps needs a consistent, well-funded program
 across Victoria, NSW and the ACT, using best practice methods. Commonwealth
 funding to incentivise and or support state action would be critically important.
- If there are barriers to effective federal intervention, these should be addressed as a priority through the EPBC Act reforms including:
 - Create a new trigger for the assessment of actions that exacerbate a key threatening process
 - Create a new trigger for actions that negatively impact on national parks and reserves which contribute to meeting Australia's international obligations for protected areas under the Convention on Biological Diversity
 - Develop national environmental standards that apply to the management of national parks, world heritage areas, national heritage places or Ramsar wetlands.

Recommendations

- Reinstatement of Ministerial involvement in the Australian Alps Liaison Committee (AALC), both state and commonwealth Environment Ministers should be directly involved in the AALC.
- 2-5 year funding blocks from the Commonwealth for Management and Monitoring of feral horses and their impact in the Alps
- An aim for a Horse free Alps across all public lands by 2050
- Strengthen Australia's legislative framework for threat abatement planning, including creating a clear, scientifically led process for listing and abating major threats.
- Create a new trigger for the assessment of actions that exacerbate a key threatening process under the EPBC Act.
- Create a new trigger for actions that negatively impact on national parks and reserves which contribute to meeting Australia's international obligations for protected areas under the Convention on Biological Diversity
- Develop national environmental standards that apply to the management of national parks, world heritage areas, national heritage places or Ramsar wetlands.
- Development of a nationally agreed management framework and standards to provide for consistent management planning for all National Reserve System protected areas as part of EPBC standards.

Recommendations Continue

- •An Australian Alps Feral horse management plan across tenures and boarders to co-ordinate management activities across the Alps based on science with ambitious targets and meaningful resources, this could be a Role within Australian Alps Liaison Committee (AALC) resourced by the Commonwealth to meet EPBC Requirements.
- Resourced long term monitoring of Species and ecosystems listed under the EPBC Act to understand impacts and restoration of them and to understand if management activities are resulting in increased biodiversity outcomes.
- Address populations of feral horses outside of National Parks and protected areas that are and will reinvade areas under management
- Resourced long term monitoring of Species and ecosystems listed under the EPBC Act to understand impacts and restoration of them and to understand if management activities are resulting in increased biodiversity outcomes.
- Secure long term funding for feral horse removal works in 5 year funding blocks
- Co-ordinated cross boarder and cross tenure control programs aiming at eradication
- Funding and development of long term monitoring of the Australian Alps to understand if restoration works are successful and threatened species populations recover, this will need to be over decades.

Response to Inquiry Terms of reference (TOR

A) TOR response - Impacts and Management of feral horses in the Australian Alps-(I,ii,iii,iv.)

As a retired Alpine National Park Ranger has said that if you wanted to design an animal that would do the most damage to alpine ecosystems, a horse would be it.

Feral horses are found in two national parks in Victoria and State Forests surrounding them, the Alpine National Park in the state's north-east, and Barmah National Park in the state's far north along the Murray Rivers extensive wetlands that are listed under the international RAMSAR convention.

The numbers of feral horses in these areas number between 2,000 -5,000 in the Eastern alpine region, 50-100 in the Southern Bogong High plains both within the Australian Alps and 600-800 horses in the Barmah National Park.

Feral Horse Numbers Bogong High Plains

The Bogong High Plains is a specific area of focus for aerial horse surveys by Parks Victoria within the Alpine National Park, located to the south of Mount Bogong. Mount Bogong is the highest point in Victoria. This area has been surveyed every 2-3 years since 2005 using a consistent (sight-resight) method. Searches were also conducted over 15,000 hectares of State Forest land to the south of the Bogong High Plains, but this has not been included in the analysis and estimation of horse numbers. In 2018, the search area was extended to include a 6000 hectare area around Mount Nelson where horses had relocated to since the previous survey.

We understand a 2021 survey has been completed for the Bogong High Plains by Parks Victoria but the results are yet to be published.

A summary of horse numbers are as follows:

- 2018 109 horses (107-123)
- 2015: 63 horses (55-83)
- 2012: 52 horses (51-57)
- 2009: 98 horses (83-133)
- 2007: 95 horses (90-100)
- 2005: 92 horses (81-116)

Eastern Alps

An aerial survey of the feral horse population in the eastern Victorian Alps was conducted in December, 2021. The survey was conducted using helicopter line transect sampling, and the results were analysed using an internationally recognised method known as Distance Analysis.

According to Parks Victoria, feral horse populations of the Australian Alps National Parks (AANP) have earlier been surveyed using helicopter line transect sampling in 2001, 2003 and 2009, and a report (Cairns 2019) details the results of surveys conducted in April-May of 2014 and April-May of 2019. Horse surveys conducted over the Australian Alps have previously included land in both NSW and Victoria, and counting was not undertaken separately for the two states, making it difficult to extract Victorian-specific numbers for the eastern Victorian Alps.

Following community feedback and concerns about the impacts of the 2019-20 bushfires and after COVID-related delays to surveying, in 2021, Parks Victoria undertook a follow-up survey of the eastern Victorian Alps, south of the NSW-Victoria border.

The estimated abundance of horses in the survey area at the time of the survey was 2456 horses with the 95% confidence interval ranging from 1088 to 4186. This is based on an estimated density of horses of 1.32 horses per km² in the surveyed area (excluding the unsurveyed area of steep terrain), with the 95% confidence interval ranging from 0.58 to 2.25.

It was also estimated that there were 602 (344-1035) deer in the eastern Victorian Alps at the time of the survey.

The difference between the 2019 estimate for the eastern Victorian Alps area (5110 horses, see below) and the 2021 estimate (2456 horses) are likely due to:

- changes in the 2021 survey design to focus only on the eastern Victorian Alps, which does not support making a direct comparison between the two years
- impact of major bushfires on feral horse populations, which is supported by earlier pre and post-fire population surveys, including the 2020 Kosciuszko National Park survey (Cairns 2020), that showed a similar scale of reduction
- removal of feral horses from the survey area following the 2019-20 bushfires
- inherent variability when estimating populations over such large areas.

Earlier surveys also show a population growth after fires, and without sufficient intervention to manage abundance, the population will increase following the 2019-20 bushfires. The results of the 2021 survey can be used to examine the possible effects of different levels of removal on feral horse abundance over time.

The detail report are available on the Parks Vic website https://www.parks.vic.gov.au/get-into-nature/conservation-and-science/conserving-our-parks/feral-animals/feral-horses/victorian-surveys-on-feral-horses

Cultural and natural Values impacted by Feral Horses

Victoria's spectacular Alpine and Barmah National Parks are home to an array of unique native plants and animals, many of which are found nowhere else on earth. The Alpine National Park is part of an Aboriginal cultural landscape that includes the traditional Country of the Taungurung and Gunaikurnai Peoples, while Barmah National Park is located on Yorta Yorta country, and is jointly managed by Parks Victoria and the Traditional Owners of the Yorta Yorta nation.

Unfortunately, over the course of several decades, the cumulative impacts of feral horse populations have pushed certain ecological features within these parks to a breaking point. Scientific evidence of these impacts has been well summarized by the Australian Academy of Science in the publication, *Feral Horse Impacts: The Kosciuszko Science Conference – Conference Abstracts* (2018) and more recently demonstrated in the extensive field assessment undertaken published in the journal *Ecological Management and Restoration*. ⁱ These impacts include the collapse of peatbeds, the loss and degradation of other alpine plant communities, critical grasslands, riparian habitat in the Alpine National Park as well as threatening endangered species living in the wetlands and forests of the Barmah National Park.

Given the recent impact of the Black Summer bushfires on native wildlife habitats, the increasing size and distribution of feral horse populations requires urgent attention in order to preserve Victoria's iconic alpine landscapes and species for future generations.

The Victorian Alps are some of the most studied areas in Australia with studies on plantlife, wildlife and ecosystems dating back to the early 19th century with many of these studies still being undertaken in the Victorian Alps.

When the Alpine National Park (along with the other mainland Australian alpine parks) gained National Heritage listing, the citation referred to the "outstanding heritage value of the scientific research that has taken place since the 1830s, demonstrated by the density and continuity of scientific endeavour". That work includes many published research projects documenting the impact of hard-hooved grazers.

In the Victorian Alps alone feral horses implicated in the decline of four threatened plant communities or Ecological Vegetation Classes (EVCs), 25 native plants species listed as endangered or vulnerable as well as an array of vertebrate and invertebrate species listed under State and Commonwealth environment law.

Tables 1,2 and 3 in the Appendices shows the legislative listing of the biota and vegetation community and impact by feral horses in Victoria.

Degradation and loss of habitats caused by feral Horses (Equus caballus) is listed as a Potentially Threatening Process under the Victorian state law the Flora and Fauna Guarantee Act 1988 and listing of 'Novel biota and their impact on biodiversity' as a Key Threatening Processes under the Environment Protection and Biodiversity Conservation Act 1999 (Cwlth).

Feral horses are exotic fauna, and damage the environment in two broad ways: via direct herbivory (consumption of native plants), in particular grazing impacts on threatened species and ecological communities; and through degradation of natural habitats, including fouling of waterholes, accelerating erosion and trampling and consuming native vegetation.



Picture 1. Cowombat Flat, Alpine National Park on 27 February 2020, showing high grazing pressure and waterways damage outside of fenced plots. Approximately 80 horses were observed on the flat on the day this image was taken (Parks Victoria)

As shown by copious amounts of scientific evidence gathered from long term monitoring and further evaluated through the peer review process and even the courts (Australian Brumby Alliance Vs Parks Victoria, 2020) feral horses do detrimental damage to alpine ecology and degrade ecosystem functions such as habitat for threatened and endangered species, water creation and cleaning and carbon sequestration to name a few.

Damage to cultural heritage sites in the Victorian Alps by feral horses in the Alpine National Park, over 600 places and associated objects are recorded from the Victorian Alps in Aboriginal Victoria's site registry with a further 350 sites identified after surveys in 2003¹. Feral horses pose an ongoing risk to the landforms, sites both tangible (visible) and intangible (lore) cultural sites and more broadly to the health of Country.

A detail Q&A and on ground photo collection can be accessed here https://vnpa.org.au/feral-horses-no-place-national-parks/



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¹ PROTECTION OF THE ALPINE NATIONAL PARK Feral Horse Action Plan, Parks Victoria. November 2021

Damage to First Nations cultural heritage sites occurs outside of the Alps area by feral horses, this occurs in the Barmha National Park and Ramsar site on Yorta Yorta country a co-managed national park between Parks Victoria and Yorta Yorta Nation Aboriginal Corporation (YYNAC). Damage from the horses is clear and of concern to the Yorta Yorta more can be read about some of those issues here with the Yorta Yorta community and land managers also being harassed, abused by extreme pro-feral horse supporters. See joint media release https://vnpa.org.au/protect-cultural-and-ecological-recovery-within-the-barmah-national-park-as-a-result-of-2022-major-flood-event/

As we highlight in our June 2021 Park Watch Article, "Barmah horse management gets a feral response".

"Opposition to horse management has now become personal and vindictive, attacking Parks Victoria, which is legally obliged to manage the land to protect its many threatened species, and attacking individual members of the Yorta Yorta community, who are just trying to offer their voice to protect the small amount of their once-large territory that they now, legally, have joint management responsibility for." Page 18 - 19 https://vnpa.org.au/wp-content/uploads/2021/06/VNPA-Park-Watch-June-2021-285-V2.pdf



Photo 2. Horse faeces at the door of the Dharnya Community and Education Centre (Dharnya Centre) (2021) Jordan Crook/VNPA

It is pivotal that feral horses as well as other hard hoofed animals are where possible eradicated from the Alps as soon as possible to allow native ecosystems and wildlife not only to recover, but to also restore their resilience to adapt to future warming caused by climate change related warming of the atmosphere. If feral horses are further left under managed in these natural areas the possibility of these areas sustaining populations of endangered wildlife and plant life and ecosystems will

diminish immensely and add to the burden of climate change related and fuel Australia's extinction crisis.

The Alps are also a vital water catchment area with the heads of many rivers and tributaries found in the snowy peaks, bogs and streams to turn into raging river downstream. Around 30% of the Murray Darling Basin's average annual flows are from the Alps. The slow release of this water from the fragile ecosystems in the head of these rivers allows for almost year round flows from the Alps.

As stated by Australian Alps National Parks "The bog and fen communities are of particular significance in regulating the flow of water. Sphagnum Moss (Sphagnum cristatu), the major species in the bog communities, can absorb up to twenty times its own weight in water. In this way bogs act as natural reservoirs for the storage and slow release of water"². Horses have a detrimental impact on these bog communities impacting both water quality and critical habitat.

When managing feral horse numbers all tools that meet welfare considerations should be on the table as more than one technique is going to be needed due to the remote nature of the Alps, the mobility of feral horses and sheer number of horses in some areas.

Consideration should also be given for integrated Feral animal control, with multiple species targeted at once (Horses, deer, Pigs etc) using methods such as arial shooting.

b) Response to TOR - Commonwealth powers and responsibilities, including (I,ii,iii):

Obligations under international law

Australia ratified the International Convention on Biological Diversity in 1993. As a contracting party, Australia is obliged to rehabilitate and restore degraded ecosystems and promote the recovery of threatened species as well as to prevent, control or eradicate 'alien species' which threaten ecosystems, habitats and species. In respect of National Parks, or IUCN Category II protected areas, the primary objective of national parks is to protect natural biodiversity along with its underlying ecological structure and supporting environmental processes, and to promote education and recreation.

In the extract below, we have selected a number of clauses from the Convention that most clearly relate to the management of feral horses in the Alps.

Each Contracting Party shall, as far as possible and as appropriate:

- (a) Establish a system of protected areas or areas where special measures need to be taken to conserve biological diversity;...
- (d) Promote the protection of ecosystems, natural habitats and the maintenance of viable populations of species in natural surroundings; ...
- (f) Rehabilitate and restore degraded ecosystems and promote the recovery of threatened species, inter alia, through the development and implementation of plans or other management strategies;
- (h) Prevent the introduction of, control or eradicate those alien species which threaten ecosystems, habitats or species; ...
- (k) Develop or maintain necessary legislation and/or other regulatory provisions for the protection of threatened species and populations.

² EDUCATION RESOURCE WATER CATCHMENT, Australian Alps National Parks

Obligations under national law

The respective parties responsible for managing the Alpine and Barmah National Parks share obligations for the management of feral horses, in terms of adequate protections for the recovery of EPBC listed threatened species but also under policy statements for particular ecological communities. The policy statement for the *Alpine Sphagnum Bogs and Associated Fens* community, which applies to 7 different alpine Ecological Vegetation Classes (EVC's) in Victoria, notes the significant threats posed by non-native animals and emphasises implementation of the 'control and eradication of feral non-native animals in alpine and subalpine regions' as a priority management action. Additionally, management of feral horses is crucial to the protection of critical habitat for dozens of EPBC listed fauna and flora.

Australian Alps MOU

The three jurisdictions (Vic, Act, NSW) along with the Commonwealth have worked together since 1986 when a Memorandum of Understanding (MOU) was signed by all to help with cross boarder coordinated management of the Alpine National Parks.

https://theaustralianalpsnationalparks.org/the-alps-partnership/a-story-of-cooperation/

The Australian Alps MOU was an important initiative, but over the last decade or so seem to have been downgraded in importance to largely a agency coordinating meeting and various other forums. The Australian Alps Ministerial Council should be reinvigorated and the Australian Government should fund an officer reporting to the Australian Alps Liaison Committee to focus on interstate collaboration for feral horse control. The existing organisation may also provide a vehicle for the provision Commonwealth funds for coordinated feral horse control efforts, if other mechanisms are not suitable.

National Heritage Listing

Under the Federal Environment Protection and Biodiversity Conservation (EPBC) Act, the Alpine National Park has National Heritage listing as part of the Australian Alps National Parks. The citation for that listing includes:

"The Alps are one of eleven sites recognised in Australia by the IUCN as a major world centre of plant diversity... The AANP is a vital refuge for alpine and sub-alpine flora and fauna species, with a high level of richness and endemism across a wide range of taxa, and therefore has outstanding value to the nation for encompassing a significant and unique component of Australia's biological heritage."

Importantly, in the context of this submission, the citation also points out that:

"The AANP has outstanding heritage value for the scientific research that has taken place since the 1830s, demonstrated by the density and continuity of scientific endeavour."

The significance of that scientific endeavour should not be underestimated, and certainly not ignored, this rigours and long term collection of data must be supported by the Commonwealth and States to monitor the health and functions of the Alps ecosystems and threatened species.

The need to fund monitoring of the Alps ecosystems over long periods of time requires stable and meaningful funding, monitoring programs should be funded on a 2-5 year minimum rotation to secure meaningful employment of those collecting the data and allow for understanding of the impacts of feral horses, Climate change and other impacts on the Alps and allow for better more informed management of the Alps.

Under the Commonwealth Environment Protection and Biodiversity Conservation Act 1999 3 Vegetation communities, 10 wildlife species and 8 plant species are directly threatened by feral horses across the Victorian section of the Alps. Tables 1,2 and 3 in the appendices below outline these species and ecosystems threatened by horses³.

There a range of international, national and state laws which oblige land managers such as Park Victoria to control Feral Horses.

As IUCN Director General Julia Marton-Lefèvre said, in November 2012:

"Simply put, large healthy protected ecosystems are the best tool we have to conserve biodiversity, especially against the backdrop of climate change. We are in the middle of a global extinction crisis, with rates of biodiversity loss up to 1,000 times above pre-human levels. Well managed protected areas are the most robust proven solution to turn the tide of extinction."

Most of Barmah National Park is declared a protected wetland of importance under the international RAMSAR Convention. As such it is given additional protection under Australia's Environment Protection and Biodiversity Conservation (EPBC) Act.

The *Threatened Species Action Plan: Towards Zero Extinctions* released by Minister for the Environment and Water Tanya Plibersek in 2022 is a welcome step in the right direction but must be matched with sufficient long term funding to allow for meaningful reductions in threats as well as monitoring to understand if management practices are resulting in improvement in species outcomes and ecosystem health.

We note that the Australian Alps, NSW, Victoria and ACT is a listed priority area within the Threatened Species Action Plan: Towards Zero Extinctions and look forward to increased leadership from the Commonwealth in caring for the Alps and a much needed resourcing of management and monitoring.

Horses also fall under the listing of 'Novel biota and their impact on biodiversity' as a Key Threatening Processes under the Environment Protection and Biodiversity Conservation Act 1999 (Cwlth).

National Parks and Protected Area under Federal Law.

While the obligation is clear under international agreements, national laws have not operationalised protection of protected areas outside of commonwealth control territories. This issue has been investigated in detail in two briefing papers developed by the National Parks Australia Council, which VNPA is a member.

- National Parks a Matter of National Environmental Significance
- Maintaining the Values of Australia's National Reserve System of Protected Areas

The full briefing can be download here http://vnpa.org.au/npac/. Essentially the two papers propose two initiatives, establishment of an EPBC trigger for protection of national parks from inappropriate development and use and secondly development of a nationally agreed management framework and standards to provide for consistent management planning for all National Reserve System protected areas, along with associated support mechanisms. The logic and background for these initiatives are outline in brief below.

³ PROTECTION OF THE ALPINE NATIONAL PARK Feral Horse Action Plan November 2021, Parks Victoria (2021)

Make National Parks Truly National – National Parks Trigger

Under existing laws, the Australian Government can only intervene to protect national parks and other protected areas reserved primarily for the conservation of nature if there is a risk to Matters of National Environment Significance (MNES), including nationally listed threatened species, and endangered and critically endangered ecological communities. However, the concept of Matters of National Environment Significance is a political construction and doesn't reflect all nationally significant issues, including the protection of Australia's outstanding network of protected areas, collectively referred to as the National Reserve System (NRS).

Consequently, when state or territory governments wish to approve plans to introduce potentially destructive activities such as logging, grazing or developments associated with tourism into their national parks and other protected areas, there is little that can be done to stop them: Australia's protected area network has not been afforded the level of protection required to prevent actions that may destroy, damage or degrade the natural heritage values that prompted inclusion of these areas within the National Reserve System in the first place.

There is a strong need for greater Australian Government involvement in the protection of the National Reserve System. This can be achieved by introducing an amendment or regulation to the Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act) that would help secure the National Reserve System by including protected areas as Matters of National Environment Significance. Such an amendment would extend protection to all national parks and high value conservation reserves across Australia.

At a minimum Matters of National Environment Significance should include protected areas that are designated IUCN categories Ia (Strict Nature Reserve), Ib (Wilderness Area) and II (National Park). Protected areas on private lands should also be included. These are areas that have been funded by the Australian Government and should have national oversight consistent with other areas within the National Reserve System.

This trigger would require Australian Government approval of activities that could have significant detrimental impacts on the natural heritage values within the National Reserve System and would subject commercial proposals and other proposed activities in these protected areas to stronger national and consistent oversight. The inclusion of protected areas (particularly areas protected for their relatively high biodiversity values) as a Matter of National Environment Significance would improve the Australian Government's ability to fulfil its national (e.g. s.3 (1)(c) of the EPBC Act) and international obligations to conserve biodiversity (e.g. as Party to the Convention on Biological Diversity) and is appropriate given the National Reserve System is the Australian Government's – and indeed all states and territories – primary means of fulfilling these obligations.

The key recommendation from this paper is that: protected areas that comprise the National Reserve System on the list of Matters of National Environmental Significance under the Environment Protection and Biodiversity Conservation Act 1999. A summary can be found in the article https://vnpa.org.au/is-it-time-to-make-national-parks-truly-national/

Maintaining the Values of Australia's National Reserve System of Protected Areas – National Standards

The National Reserve System is the primary mechanism to conserve and prevent its decline as well as its associated ecosystem service and cultural values. However, the establishment of a protected area network on the ground is not enough to protect these values: the National Reserve System by itself needs to be effectively and equitably managed.

Current management of the National Reserve System and its evaluation is inconsistent and hasn't incorporated adaptive management practices into the system. As a result, we can't assess whether the values these areas were protected for in the first place are being adequately conserved and we are not able to adjust management practices according to knowledge regarding the efficacy of existing management practices for protecting the very values we are trying to conserve. This is a particularly important consideration in this era of changing climate that will impact on biodiversity in ways we cannot predict but must be able to respond to effectively. These deficiencies are one of the priority actions recognised in Australia's Strategy for the National Reserve System is the development of a nationally agreed management framework and standards to provide for consistent management planning for the National Reserve System. In relation to management, priority actions identified include:

- Development of a nationally agreed management framework and standards to provide for consistent management planning for all National Reserve System protected areas.
- Application of adaptive management strategies that incorporate lessons learnt into ongoing management to ensure flexible and effective responses to emerging threats.
- Development and application of a National Management Effectiveness Framework to evaluate the management of protected areas of all types consistently with the goals of the National Reserve System.
- The stimulation of funding from a variety of sources and use other incentives to enhance protected area management capacity to meet National Reserve System standards.

Although the development of a nationally agreed management framework and standards to provide for consistent management planning for all National Reserve System protected areas etc is a 'priority action', little progress has been made and management of the National Reserve System continues to be disparate and seriously under-resourced: these 'priority actions' remain entrenched in policy rhetoric.

The Australian Government has a pivotal role in progressing this. Importantly, the government can provide national leadership and can coordinate a national approach to developing an efficient system of, and funding for, the management of the protected area estate, which is a significantly better option than the scattered approach that is currently in place.

In 2012 Federal Environment Minister Tony Burke proposed an approach consistent with this idea, using regulations under Section 25 of the EPBC Act, in response to moves to return cattle grazing to the Alpine Nation Park by the Victorian Coalition Government.

https://www.theage.com.au/national/victoria/commonwealth-seizes-power-on-alpine-grazing-20111021-1mc3r.html. The regulation were never implemented but a copy of the draft of these regulations, can be found in attachment I

The Australian Labour Party, during the 2019 election announced a policy to implement a National Parks Trigger. In a media announcement by Shadow Minister for Environment, Climate Change And Water, The Hon Mark Butler, that:

"Labor will legislate to include a National Parks Trigger in the Environment Protection and Biodiversity Conservation Act to ensure any proposed developments in a national park would be subject to the EPBC approval process." A copy of the media release and associated fact sheet can be found in attachment II

We also note the 2021 ALP Policy Platform which states: "Acknowledging that protected areas are fundamental to biodiversity protection, Australia needs an extensive, effectively-managed national system of parks and reserves, as well as policies aimed at achieving ecologically sustainable use of other land and waterways. (page 44) https://alp.org.au/media/2594/2021-alp-national-platform-final-endorsed-platform.pdf

We note that the issue was raised in the Samuel Review of the EPBC Act, (section 1.4.1) but largely dismissed. Samuel Review notes:

"Many of the suggestions about the Commonwealth taking on broader role reflect a lack of trust that State and Territories will manage these laments well. The review does not agree with suggestion that the environmental matters the EPBC Act deal with should be broadened. The remit of the Act should not be expanded to cover environmental matters that are State and Territory responsibilities. To do so would result in muddled responsibilities, further duplication and inefficiency. Unclear responsibilities mean that the community is less able to hold government to account".

The review somewhat confusingly then goes on to say:

"The matters protected by the EPBC Act should focus on the places, flora and fauna that the Commonwealth is responsible for protecting and conserving in the national interest. This includes World and National Heritage, internationally important wetlands, migratory species and threatened species and ecological communities, as well as the environment of Commonwealth are as and actions by the Commonwealth." Page 45.

Noting that State Government also responsible for flora and fauna and national park fulfill part of international convention commitments. In our view the Samuel review misinterpreted the scope of the proposed national parks trigger, which was largely about assessing as a last line of defence development proposals, rather than some broad scale take over state responsibilities.

While a national parks trigger is probably geared to development actions in the context of feral horses could play a role in planned release of horses or other feral animals, similar to that of planned release or licencing of domestic stock grazing such as cattle.

One of the Samuel Review key recommendations for reforms was the establishment of clear National Standards. "

"The EPBC Act and the decisions made under it are not delivering for the environment. Strong, measurable and legally enforceable National Environmental Standards are needed to clearly define environmental outcomes and underpin and uplift the operation of the Act." page 49

We note the commitment in CBD are complementary and include both establishment of protected areas as well as threatened species and "eradication of alien species which threaten ecosystems". These are in many a package of measures need to protect biodiversity, and by cheery picking species

and or issues to determine Commonwealth responsibility undermine the integrity of the whole approach.

Key Recommendations:

- Reinstatement of Ministerial involvement in the Australian Alps Liaison Committee (AALC), both state and commonwealth Environment Ministers should be directly involved in the AALC.
- 2-5 year funding blocks from the Commonwealth for Management and Monitoring of feral horses and their impact in the Alps
- An aim for a Horse free Alps across all public lands by 2050
- Strengthen Australia's legislative framework for threat abatement planning, including creating a clear, scientifically led process for listing and abating major threats.
- Create a new trigger for the assessment of actions that exacerbate a key threatening process.
- Create a new trigger for actions that negatively impact on national parks and reserves which contribute to meeting Australia's international obligations for protected are as under the Convention on Biological Diversity
- Develop national environmental standards that apply to the management of national parks, world heritage areas, national heritage places or Ramsar wetlands.
- Development of a nationally agreed management framework and standards to provide for consistent management planning for all National Reserve System protected areas as part of EPBC standards.

c) Response to TOR: the adequacy of state and territory laws, policies, programs and funding for control of feral horses and other hard-hoofed invasive species in the Australian Alps, and their interaction with Commonwealth laws and responsibilities;

There are many laws that oblige the State of Victoria through its land managers Parks Victoria and Department of Energy, Environment and Climate Action (DECCA) to control the impacts of horses and other invasive species in the Alpine National Park, Barmah National Park and other public lands such as State Forest and undesignated crown lands with high conservation values.

Lands managed by Parks Victoria under the National Parks Act obliges the land manager to control feral and invasive species and manage the lands for the conservation of native flora and fauna;

The objects of the National Parks Act are:

- (a) to make provision, in respect of national parks, State parks, marine national parks and marine sanctuaries-
- (i) for the preservation and protection of the natural environment including wilderness areas and remote and natural areas in those parks;
- (ii) for the protection and preservation of indigenous flora and fauna and of features of scenic or archaeological, ecological, geological, historic or other scientific interest in those parks; and
- (iii) for the study of ecology, geology, botany, zoology and other sciences relating to the conservation of the natural environment in those parks; and
- (iv) for the responsible management of the land in those parks;

Further, the Act requires the Parks Victoria to (among other things):

- (a) ensure that each national park and State park is controlled and managed, in accordance with the objects of this Act, in a manner that will-
- (i) preserve and protect the park in its natural condition for the use, enjoyment and education of the public;
- (ii) preserve and protect indigenous flora and fauna in the park;
- (iii) exterminate or control exotic fauna in the park;
- (iv) eradicate or control exotic flora in the park; and
- (v) preserve and protect wilderness areas in the park and features in the park of scenic, archaeological, ecological, geological, historic or other scientific interest;

(aa) have regard to all classes of management actions that may be implemented for the purposes of maintaining and improving the ecological function of the park;

If there is any doubt that addressing the growing numbers of feral horses doesn't fit within the State of Victoria's remit through its public land managers obligations Victoria's Flora and Fauna Guarantee (FFG) Act lists *Degradation and Loss of Habitats Caused by Feral Horses* as a 'potentially threatening process', the highest threat listing available under the Act.

But in Victoria there is issues of horses moving back into areas from other lands where feral horses are not being controlled, this is a growing issue with horses moving across the NSW/Victoria boarder where horses are not managed and undermining eradication attempts by Parks Victoria as well as a lack of management of invasive species on other public lands such as State Forest by DECCA.

There is a strong need for cross tenure and cross boarder management of feral horses as well as other species such as deer and pigs that are highly mobile. There is a role here for the Commonwealth to guide and manage these programs across tenures and boarders to achieve long term reductions and removal of invasive species across the Alps in a strategic and meaningful manner.

The Protection of the Alpine National Park: Feral Horse Action Plan (Nov 2021) https://www.parks.vic.gov.au/projects/feral-horse-action-plan-2021 by Parks Victoria is a solid document and refers to obligations under the EPBC Act but documents, strategies and action plans. Victoria has made significant progress in putting in place plans and program for control of feral horses. Action has however been delayed on multiple occasions due to unsuccessful court cases by pro brumby advocates, and requires long term funding to allow a ramping of control efforts.

Importantly the strategy outlines suit of control options including arial shooting, which has not been used to date.

Thes strategy has the following key elements.

Prevent new populations establishing and remove isolated populations where feasible

- Maintain active surveillance programs to detect emerging populations of feral horses in new locations.
- Immediately remove any feral horses that have invaded, or have been released to new areas outside their current distribution in the Alpine National Park.
- Remove all feral horses from the Bogong High Plains, monitor for reinvasion, and undertake further removals as required.
- Develop partnerships with DELWP to coordinate cross-tenure feral horse control in the Cobungra and Dinner Plain areas to prevent re-invasion of the Bogong High Plains and to protect environmental values.

Continue to work with stakeholders to improve rehoming capacity and outcomes.

Contain and reduce feral horse numbers in core, larger populations

- Increase annual rate of removal of horses from the eastern Alps, particularly areas of high conservation values.
- Develop partnerships with DELWP to coordinate cross-tenure feral horse control where required for the protection of environmental values.
- Establish and maintain exclusion fencing where required to protect species at high risk of extinction or for monitoring and evaluation of feral horse damage.
- Apply aerial shooting in response to exceptional circumstances as required, or if other methods cannot meet conservation or welfare objectives.
- Continue to work with stakeholders to improve rehoming capacity and outcomes.

Use the most humane, safe and effective horse control methods

- Conduct feral horse control according to codes of practice and standard operating procedures.
- Continue implementing the Expression of Interest process and rehoming register to identify rehoming opportunities in advance of trapping horses.
- Undertake trapping, and provide horses to organisations or individuals that are able to demonstrate they can provide suitable care for them.
- Implement feral horse removal by ground shooting using professional shooters, particularly
 in high priority conservation areas reduce environmental damage and minimise potential for
 poor animal welfare outcomes.

These strategies are however close to useless unless adequate funding is allocated to them over long periods of time, it could be argued that the Commonwealth should be adding resources to this existing plan to ensure its success. The Commonwealth has a critical role to incentives states, through at least matched funding programs to allow long term and sustained programs of feral horse control.

While Victoria has stood firm and commenced feral horse control the NSW NATIONAL PARKS & WILDLIFE SERVICE Kosciuszko National Park Wild Horse Heritage Management Plan, presents a clear threat to the success of future operations. The presence of wild horses retention areas directly adjacent to the Victorian boarder (see below) will effectively undermine future control efforts.

The current NSW plan to main a wild horse population at 3000 by the 2027, essential allows NSW to maintain population greater than what is currently in the southern Alps, which in 2021 was estimated to be 2456 (at 95% confidence levels).

VNPA opposed the idea in the draft plan and encouraged our supporter to do the same. https://vnpa.org.au/rejectnswplan/

Welfare Considerations written in laws and regulations

In Victoria horse management is subject to animal welfare legislation the Prevention of Cruelty to Animals Act (POCTA) and further regulated through the Code of Practice for the Welfare of Horses (Animal Welfare Victoria 2019) and the Australian Animal Welfare Standards and Guidelines — Land Transport of Livestock (AHA 2012).

Non-lethal controls have been purported by feral horse lobby groups such as trapping and rehoming

to Fertility control but these options have time again been shown to be ineffectual or have low take up from the general public.

In regards to trapping and rehoming of feral horses this not only has welfare concerns with horses that is highlighted in the Alpine National Park Feral Horse Action Plan 2021 stating "Due to the stresses of being captured (and potentially separated from other members of the horse band), held in trap yards, loaded into stock crates for the first time, and subject to transport over long and potentially rough journeys, this removal method is considered to have a moderate impact on horses" and can lead to injury via slips, trips and falls by the horse, collision with fencing, jarring of injuries with these risks increased with extended periods of time within trucks to move the horses.

There is also the issue of little take up from the public to rehome feral horses from both the Alpine region and Barmha National Park. There are only so many suitable homes to take feral horses and meet welfare standards. The market is flooded with domesticated horses and domesticated exracehorses that are used to human contact and don't require domestication and training, thus the demand for high import, feral horses is low in the community.

In regard to fertility control as a tool to reduce the numbers of feral horses it has been shown to not only be a highly stressful for the animals due to trapping and drugging of feral animal but also shown to not be feasible in Australia due to the high number of feral horses and remote areas in which they cover⁴.

As shown by Hobbs and Hinds (2018), after over 20 years of scientific testing of immunocontraceptive vaccines in the horse, the scientific consensus is that their application as a sole management approach for reducing population size is not an effective strategy.

The use of aerial shooting to reduce feral horse numbers is an effective and humane tool and reduce numbers to remote and areas of heavy terrain where ground based shooting and trapping cannot take place safely.

Although many mistruth have been spread about Ariel shooting it remains an effective tool in reducing feral animal numbers across the country, including feral horses and meets animal welfare outcomes when conducted under the management of a qualified Vet and suitably experienced and trained marksman.

Key Recommendations:

An Australian Alp

- An Australian Alps Feral horse management plan across tenures and boarders to coordinate management activities across the Alps based on science with ambitious targets and meaningful resources, this could be a Role within Australian Alps Liaison Committee (AALC) resourced by the Commonwealth to meet EPBC Requirements.
- Resourced long term monitoring of Species and ecosystems listed under the EPBC
 Act to understand impacts and restoration of them and to understand if management activities are resulting in increased biodiversity outcomes.
- Address populations of feral horses outside of National Parks and protected areas that are and will reinvade areas under management

⁴ Could current fertility control methods be effective for landscape-scale management of populations of wild horses (Equus caballus) in Australia? Rebecca J. Hobbs and Lyn A. Hinds (2018)

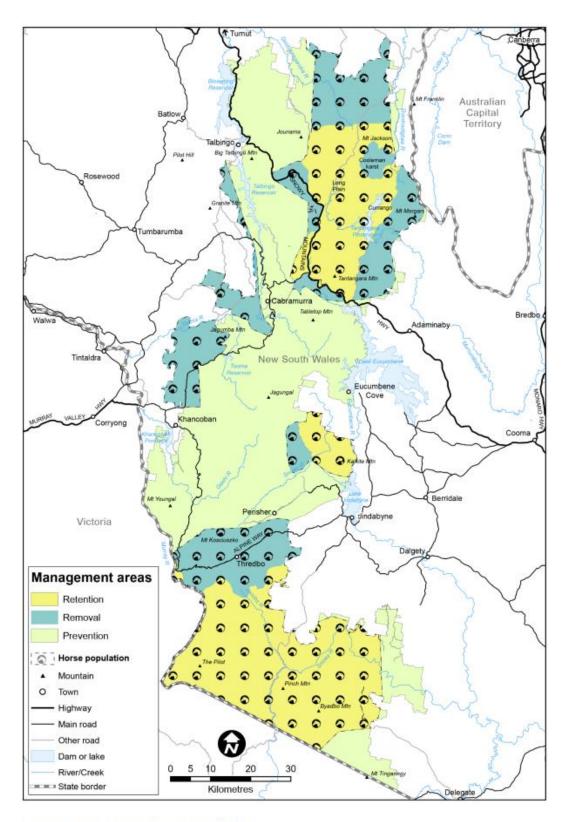


Figure 2 Wild horse management areas

d) Response to TOR. measures required to repair and restore native habitats for species impacted by feral horses and other hard-hoofed invasive species in the Australian Alps, including for iconic species like the corroboree frog and the platypus; and

The greatest need is to where possible eradicate hard hoofed invasive species from the Australian Alps or reduce their numbers down to a level where damage caused is heavily reduced, this will require secure long term funding this allows capability to be built within land management organisations and to ensure any repopulation of areas are dealt with before reestablishment of invasive species populations. Funding blocks should be in minimum 3 year blocks to allow for secure planning of operations, with best practice funding allocations delivered in 5 yearly blocks.

Cross boarder and tenure management of invasive species is also a much needed to stop reinvasion of treated areas and reduce the number of invasive species in the landscape. For example the Nunniong Plains in the Nunniong State Forest, Victoria are Managed by DECCA contain populations of feral horses that cross between the Alpine National Park and the State Forests.

DECCA to the best of our knowledge does not undertake control of feral horses in the State Forest potentially jeopardising gains made through control works undertaken by Parks Victoria in the Alpine National Park. The Nunniong State Forest contains Alpine bogs and fens that should be protected by the EPBC Act, it is unclear how DECCA meets its obligations in protecting them from feral horses and other invasive species. See Map 2 Below-

Long Term monitoring of recovery and restoration efforts is needed to understand if restoration works have been successful in repairing habitats degraded by feral horses. Long term monitoring will help land managers to understand if their restoration activities are successful in reversing the decline in endangered species and ecosystems and if investment has been successful.

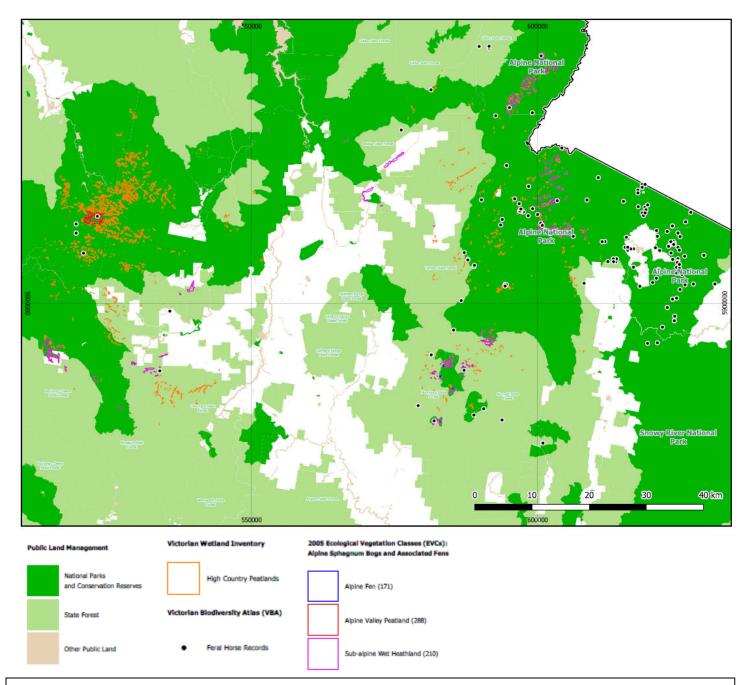
Without long term monitoring not only of feral horse populations but the recovery of Australian Alps after their removal the true recovery of endangered species and ecosystems will remain unknown.

In terms of what operations are required to restore the damage caused by feral horses the following documents outline what onground works are needed based of experience of land managers and scientists;

- Restoration of Mires (bogs and fens) in the Australian Alps following domestic stock grazing and the impacts of the 2003 wildfires Roger Good on behalf of the Mire Restoration and Research Group Australian Alps Liaison Committee, 2009
- The Australian Alps Rehabilitation Manual: A guide to ecological rehabilitation in the Australian Alps, Prepared for the Australian Alps Liaison Committee, July 2006

Recommendations:

- Secure long term funding for feral horse removal works in 5 year funding blocks
- Co-ordinated cross boarder and cross tenure control programs aiming at eradication
- Funding and development of long term monitoring of the Australian Alps to understand if restoration works are successful and threatened species populations recover, this will need to be over decades.



Map 2. Alpine Sphagnum Bogs, Associated Fens and Peatlands in North-east Victoria with Victorian Biodiversity Atlas (VBA) records of feral horses.

e) any other related matters.

Appendices

Floristic Community or Ecological Vegetation Class	EPBC status	Victorian status (FFG)	Main impacts of feral horse activity
Alpine Bog Community	Endangered*	Listed	Trampling (DEWHA 2009 ¹), disruption of plant regeneration, selective grazing leading to compositional changes, weed invasion, soil loss and loss of hydrological function.
Fen (Bog Pool) Community	Endangered*	Listed	Trampling (DEWHA 2009¹), disruption of plant regeneration, selective grazing leading to compositional changes, weed invasion and loss of hydrological function.
Alpine Snowpatch Community		Listed	Severe trampling, soil loss, displacement of vegetation, weed invasion, selective grazing leading to compositional changes.
Caltha (Psychrophila) introloba Herbland Community		Listed	Soil loss, displacement of vegetation, weed invasion
Montane Swamp Complex Community		Listed	Severe trampling, soil loss, displacement of vegetation, weed invasion, smothering by dung piles, selective grazing leading to compositional changes.
White Box-Yellow Box- Blakely's Red Gum Grassy Woodland and Derived Native Grassland	Critically Endangered		Soil loss, displacement of vegetation, weed invasion, selective grazing leading to compositional changes, interference with regeneration. There are high numbers of feral horses in the White Box Woodlands around the upper Snowy River.

^{*} Alpine Bog and Fen Pool communities are combined in the EPBC listing

Table 1: Victorian floristic communities threatened by feral horse activity (Parks Vic 2021)

ⁱ Robertson, G., Wright, J., Brown, D., Yuen, K. and Tongway, D. (2019). An assessment of feral horse impacts on treeless drainage lines in the Australian Alps. *Ecological Management and Restoration*, 20: 21-30. https://onlinelibrary.wiley.com/doi/10.1111/emr.12359

Species	EPBC / FFG status	DSE 2013 ² ; 2009 ³)	Main impacts of feral horse activity		
Alpine Water Skink (Eulamprus kosciuskoi)	- / Listed	critically endangered	Loss and degradation of habitat - alpine bog and fen communities. Trampling by feral horses is listed as a threat in the FFG Action Statement.		
Alpine Bog Skink (Pseudemoia cryodroma)	-/Listed	endangered	Loss and degradation of habitat - alpine bog and alpine fen (bog pool) communities, woodlands and heathlands		
Alpine She-oak Skink (Cyclodomorphus praealtus)	Endangered / Listed	critically endangered	Loss and degradation of habitat - alpine tussock grasslands, alpine low heathlands. Trampling is listed as a threat in the FFG Action Statement.		
Guthega Skink (<i>Liopholis</i> guthega)	Endangered /	critically endangered	Loss and degradation of habitat - alpine heathland		
Mountain Skink (<i>Liopholis</i> montana)	-/-	data deficient	Loss and degradation of habitat - alpine woodlands		
Alpine Tree Frog (Litoria verreauxii alpina)	Vulnerable / Listed	critically endangered	Loss and degradation of habitat - alpine and subalpine wetlands, riparian zones and ephemeral pools.		
Smoky Mouse (Pseudomys fumeus)	Endangered / Listed	endangered	Degradation of habitat - heathlands and montane woodlands. Increased access by foxes and wild dogs.		
Broad-toothed Rat (Mastocomys fuscus mordicus)	Vulnerable / Listed	endangered	Loss and degradation of habitat - dense wet heathlands and grasslands. Increased access by foxes and wild dogs.		
Alpine Spiny Cray (Euastacus crassus)	- / Listed	rare	Loss and degradation of habitat - alpine streams. Trampling and water turbidity are threats in the FFG Action Statement.		
Alpine Stonefly (Thaumatoperla alpina)	Endangered / Listed	vulnerable	Loss and degradation of riparian zones and degradation of instream habitat. Declines in water quality – direct bank erosion and sediment inputs to streams causing siltation, nutrient enrichment and other changes to water quality (e.g. dissolved oxygen pH).		
Mount Stirling Stonefly (Thaumatoperla flaveola)	- / Listed	vulnerable			

Table 2: Officially listed or threatened fauna species potentially at risk from feral horse activity in the eastern Victorian high country (Parks Victoria 2021)

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Species	EPBC (AROT) / FFG status	VROT status ⁴	Main impacts of feral horse activity
Slender Parrot-pea (Almaleea capitata)	-/Listed	vulnerable	Trampling of habitat - sub-alpine heathlands and stream fringes
Bogong Apple-moss (Bartramia subsymmetrica)	-/ Listed	endangered	Trampling, particularly of bogs and fragile stream edges in subalpine heathlands, bogs, and creeklines. In Victoria this species is restricted to the Bogong High Plains area.
Austral Moonwort (Botrychium australe)	-/Listed	vulnerable	Trampling and loss of habitat - subalpine grassland and margins of bogs and streams. Intolerant of disturbance.
Dwarf Sedge (Carex paupera)	Vulnerable / Listed	vulnerable	Trampling and loss of habitat in alpine wet heathlands and bogs. Palatable to stock.
Marsh Tree-moss (Climacium dendroides)	-/ Listed	vulnerable	Trampling, particularly of bogs and fragile stream edges in bogs, swampy depressions and creeklines. Known only from 3 sites from near Dargo and the Bogong High Plains.
Cushion Rush (Juncus antarcticus)	-/Listed	vulnerable	Trampling and loss of habitat - Caltha introloba Herbland Community, Alpine Snowpatch Community and bog margins
Snow Daphne (Kelleria laxa)	Vulnerable / Listed	endangered	Trampling of damp grass
Hump Moss (Meesia muelleri)	-/-	rare	Trampling and damage to habitat - boggy grasslands
Marsh Leek-orchid (Prasophyllum niphopedium)	-/Listed	endangered	Trampling and loss of habitat - alpine wet heathlands and bogs. Observed to be directly impacted (Coates et al. 2002 ¹ .) Trampling and grazing are listed as threats in the FFG Action Statement.

Table 3: EPBC-listed, FFG-listed, or VROT plant species potentially at risk from feral horse activity in the eastern Victorian high country. (AROT = Australian Rare or Threatened status, VROT = Victorian Rare or Threatened status.) (parks Victoria 2021)