



The ACT Equestrian Association Incorporated

ABN 47 674 025 536

All correspondence to:
The Secretary, PO Box 4, Curtin ACT 2605
Phone 02 6247 7843

www.actea.asn.au

President – Christine Lawrence

Vice-President – Cathy Banwell

Secretary – Beth Stone

Treasurer – Debbie Morrissey

Mr Daniel Iglesias
Director
ACT Parks and Conservation Services
Territory & Municipal Services Directorate

Attention: Trish Bootes

Canberra Nature Park Draft Reserve Management Plan 2016

The ACT Equestrian Association welcomes the opportunity to make the following early comments on the draft of the new Canberra Nature Park Reserve Management Plan.

The Elephant in the Room

While the Draft Management Plan states

Recreational, community health and wellbeing objectives are integrated with nature conservation goals in management of the reserves.

it does not really devote much space to considering what impact a massive amount of recreational pressure will have on the reserve system over the life of this Plan. In the year 2000 there were around 311,000 people in Canberra. The Territory is expected to hit 400,000 this year and to be gunning for 500,000 by 2036 when this Plan will be 20 years old. All these people will be looking for somewhere to recreate in their local environment. While a Parks and Conservation organisation legitimately expects the protection of the natural environment and at-risk ecological systems to be its main task, ignoring this reality is planning for the future by turning a blind eye. Recreation pressure will be a major issue for the Canberra Nature Park over the next couple of decades and zoning on a reserve by reserve basis is probably not a solution.

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The Present Level of Equestrian Access to Canberra Nature Park

We welcome statements such as

Canberra Nature Park reserves are also highly valued for nature appreciation and low key, nature based recreation including walking, running, dog walking, mountain biking, **horse riding** and group activities such as orienteering and rogaining. The ACT Government supports and encourages these activities as part of an active lifestyle and a way of maintaining physical and social health. (p11)

This warm message is repeated again on page 73 of the Draft Plan but it isn't true for horse riders. ACTEA would like to point out that the public areas in which horse riding can take place in the ACT have significantly diminished since the 1999 Canberra Nature Park Management Plan effectively locked horse riders out of most of the Territory's reserve system. The loss of the Stromlo Forest in 2003 and the Lower Cotter Catchment in 2009 has been further eroded by the steady encroachment of urban sprawl.

Of the 40 Reserves listed in Table 7.1 horse riding is indicated as being permitted in 15. This is untrue, misleading and patronising. In at least half of these reserves horse riding is restricted to either an external fenced laneway or a single boundary through track. Horse riding is not permitted IN most of these reserves. ACTEA can understand why dog walking, **horse riding** and mountain biking might be limited to particular areas in order to protect the natural and cultural values of reserves or to minimise pressure on more sensitive pathways. We have seen no evidence-based rationale for why mountain bikes have access to formed vehicle tracks in 30 reserves while equestrians remain significantly restricted. Comments on the Reserve descriptions in Part 2 of the Plan are at Appendix 1.

The section on Horse Riding in the Canberra Nature Park (p76) is substantially incorrect or misleading. The section implies that an extensive pleasurable riding network exists connecting horse paddocks and nature reserves when access to these Reserves is extremely limited and the links are increasingly under threat by urban development and proliferating infrastructure. Many equestrians who wish to ride out are restricted to long stretches of unpleasant and dangerous road verges or sharing urban pathways with speeding cyclists when this does not have to be the case. At this point in time Parks and Conservation appear to be "minimising conflicts with other users and reduces risks to the riders and their animals" by not allowing horses into the Canberra Nature Park.

Poor Scientific Justifications

The situation in which horses are prohibited in Reserves unless specifically allowed in an Activities Declaration is inequitable when mountain bikes are apparently allowed the use of vehicle tracks unless specifically prohibited. There is no scientific evidence to support this differential treatment, especially when you take into account the disparity in numbers between horses and bicycles. ACTEA strongly objects to Parks and Conservation persisting in relying on principles outlined in *Horse Riding in Canberra Nature Park: A Report to Environment ACT* (Landsberg 1999) when there is much and more recent evidence proving that recreational horses travelling in small numbers are no more likely to spread weeds, compact soil or deposit pathogens than any of the other users of the same space. ACTEA and Duntroon Paddocks Landcare Group commissioned Dr Sara Beavis of the Australian National University to undertake a review of the Landsberg report in 2000. While Dr Beavis' expertise is regularly called upon by the ACT government, the contents of this report are not, apparently, worthy of notice by Parks and Conservation. There is a significant amount of empirical research proving that there is little support for the prejudices inherent in the Landsberg Report and the Draft Management Plan and some of this wider scientific view should be underpinning decisions about the Activity Declarations for Canberra Nature Park.

The Numbers

There are estimated to be 2,500 horses in Canberra. Assuming:

- all of them are ridden in some part of the CNP (which they are not);
- every horse owner has only one of the 2,500 horses (which is not the case; and)
- all 332,000 residents of Canberra use some part of the CNP every year (which they don't)

horse riders constitute around 0.7% of users of the CNP network.

Alternatively, if you accept that:

- not all horse owners take their horses off property;
- not all horse owners can reach a part of the CNP from their property;
- maybe 60% of Canberra residents access some part of the CNP annually; and
- about 400 horses are resident within riding distance of approved trails in the CNPs
- equestrians had unfenced access to less than 10 of the CNP reserves

then horse riders constitute around 2% of users of the CNP network

No matter how the numbers are manipulated it is not possible, even with a greater level of access to a larger number of reserves contiguous with the established equestrian trail network, that horse riders could constitute more than 5% of recreational users in any part of CNP.

On what basis can they be considered to perpetrate so much damage in comparison with other more warmly welcomed users?

The Bias

There is no activity that you can undertake in the bush which has no impact. This, includes traditional activities like bushwalking.

Research by Professor Catherine Pickering from the Environmental Futures Institute at Griffith University suggests that 73 per cent of visitors to Australian national parks carry seeds on their clothing, acting as vectors for the dispersal, along with their vehicles, bicycles, horses and dogs. 'We've found in the research estimates of over 1.9 million seeds being carried by walkers into national parks, not intentionally, but just by being picked up as you go for a hike.' In this context, labelling the far fewer horses who have access to national parks as prime culprits is irrational.

Bias against horses in national parks dates from the early 1980s and seems to have originated in the conservation movement, particularly in NSW. Little of it was based on research and certainly none of the lovers of the natural environment wanted to believe that they contributed in any way to soil erosion or the spread of weeds as they tramped lovingly across the new national parks in increasing numbers.

No horse rider claims that horses have no impact in some way on the territory they cover. What they do claim is that:

- very little research into weed spread through manure is carried out under the conditions in which horses could be vectors in nature - most of it is undertaken under laboratory or greenhouse conditions¹
- many researchers seem oblivious to the nature of the horse which does not consume most of the significant environmental weeds, has a mouth full of large molars, a gut which destroys all but the most resilient of seeds and does not defecate nearly as much as is supposed
- most research completely ignores the fact that most weed seed is spread by other, far more numerous vectors
- weeds appear in significant quantities in parts of reserves where horses never go
- a lot of research does not differentiate between types of trails and makes sweeping judgements about all footings including vehicle management tracks based on unsurfaced walking tracks predominantly shared by walkers

Equestrians are adamant that horses travelling on compacted management tracks do not spread weeds or disturb soil any more efficiently than walkers, cyclists, vehicles, birds, kangaroos or surface water and are far less numerous in the environment than all of those. **In other words, no researchers have been able to isolate the impacts of horses as weed dispersers from other users or prove that a passing horse distributes any more weeds than any other passing vector.**

While shod hooves can cause disturbance on poorly drained or fragile walking tracks their impact is no greater than that of much more numerous walkers or mountain bikes and on formed management tracks their impact is minimal.

Weeds - The Research

Most research into weed spread by horses has been conducted in the United States as component of the study of weed spread in general. Many of the researchers seem to admit only begrudgingly that there is no proof that horses are any more efficient at weed spread than humans or other vectors. There are however some common themes.

Most seeds found in horse manure are not viable. Cash, Barney and Gagnon (2006) found that the mastication and digestion of viable weed seed by the equine digestive system reduced seed viability by 98%. They dosed horses with known quantities of weed seeds and report that “total passage of viable weed seeds through 72 hours ranged from 0 to 2%². They concluded that equine physiology may play a role in decreasing the ability of seeds to remain viable. Seeds must be sufficiently small and tough to get past the large strong molars of the horse, and those that do must still survive the acids and enzymes of the horse’s gut. Evidently some do, but most do not.

¹ Wells and Lauenroth (2007) spread their manure samples over a layer of sterile potting soil in a greenhouse, watered them daily and fertilised them with Miracle Gro every 2 to 3 weeks –hardly the typical fate of similar manure samples deposited out in the field

² Horse feed was dosed with known quantities of weed seeds. Manure was collected at nine intervals to 72 hours, and the manure was sub-sampled and grown in the greenhouse to detect passage of viable seeds. Total passage of viable weed seeds through 72 hours ranged from 0 to 2% (weeds) and over 10% for alfalfa.

Most viable non-native seeds that are found in horse manure fail to mature. Campbell and Gibson (2001) found that 23 non-native species germinated in their greenhouse but only 3 non-native species germinated from fecal samples in the field³. Most horse trails do not exhibit any more non-native vegetation than do trails that are closed to horses. Cole and Hall (1992) found that the change in exotic species cover at campsites used by backpackers and horsemen over a nine-year period in the Bob Marshall Wilderness of Montana was “virtually identical.”

Fed up with the bias, the American Endurance Riders Conference funded a professional study. Professor Stith T. Gower, Head of Forestry and Environmental Resources at North Carolina State University (2006) conducted several studies in the eastern United States which investigated the ability of seeds recovered from horse manure to germinate along the trail where deposition actually occurred. Gower took samples of horse hay, manure, and hoof debris from 12-24 horses at each of five American Endurance Ride Conference (AERC) rides held in North Carolina, Kentucky, Illinois, Wisconsin, and Michigan. Subsets of these samples were sown in potting buckets and grown outdoors in ideal conditions in Madison. In addition, samples from the horses at each ride were placed back on the horse trail. On average, non-native plant species germinated from 5.2% of the hay samples placed in the potting buckets, indicating horse hay contains seeds from non-native plant species. Only 3 (1%) of the 288 hay, manure, and hoof-debris plots established on horse trails at five sites in five states contained any live plants at the end of the first growing season and no surviving plants were observed after the second season.

To determine if newly introduced plant species were moving into ecosystems adjacent to the trails Gower also did vegetation surveys along 50-meter survey lines perpendicular to horse and hiking (horses not permitted) trails to compare species composition of native and non-native plants. Species composition and percent of total non-native plant species did not differ between horse and hiker trails, and the non-native plant species always occurred within 2 meters (6 feet) of the trail. Other potential sources for non-native species might be birds, he said. "

"The results of this and other studies demonstrate that horse hay and manure contains seeds of non-native plant species, but native and non-native plant species rarely become established on horse trails because of the adverse effects of harsh environmental conditions and frequent disturbance on seedling establishment," concluded Gower.

Most weeds are carried by other vectors besides horses. There are few recent studies in Australia. Weaver and Adams (1995) sampled manure in three Victorian National Parks and raised seeds under laboratory conditions. Depending on the local conditions between 45%-80% of weeds recorded from the manure were not recorded from track verges in the Parks. They also found a discrepancy between the weed species found established along the track verges and those recorded in the horse manure. They summarise, “the weeds recorded are not dispersed exclusively by horses and alternative vectors are already known for most”.

Most large herbivores do no carry seeds in their hair or coats (Janzen, 1984). Trail horses' coats are rarely shaggy and their lower legs are usually short-haired and smooth, making it unlikely that weed seeds would adhere to them.

³ Horse dung and soil samples were collected from trails from three areas open to recreational horse travel. Dung samples were placed in situ along horse trails to examine seedling germination in natural conditions. While 23 exotic species germinated from samples of horse dung in a greenhouse, only one of these exotic species was also found in trail plots. Similarly, while there were empirically more exotic species found along the trails allowing horse travel than there were on the trail lacking horse travel, the relative importance of those species was negligible along both trails. These results suggest that the emigration of exotic species via horse dung does not pose an immediate threat to the plant communities adjacent to trails.

Horses just don't produce that much manure. In 2009 the management tracks in the Lower Cotter were closed to horses because of perceived risk to water quality. This, among other things, threatened the future of the traditional Brookvale Endurance Ride over 80k of management tracks in the Brindabella Range. After ACTEA and the ACT Endurance Riders Association presented scientific and technical evidence to the Board of Management for the Lower Cotter Catchment the Ride was able to proceed with some conditions. One of these was that organisers had to collect and remove all manure dropped on the management tracks. After a long weekend in which 120 horses covered over 80k of track, some of it more than once in the 20k and 40k classes, organisers were able to collect 1½ 20L buckets of manure. Some of this content was actual soils and gravel collected when scraping up the manure. The ACT government has since allowed the Ride to proceed annually as they can produce no reason to stop it.

Erosion – The Research

Studies of the impact of recreational horses on existing trails in Australia are very limited in number and riddled with inherent bias, either focussing on commercial operations, weak spots or pinch points in trails or, in one case, being undertaken in a fire ravaged environment. Others focus on the impact of camping rather than on recreational riding. In Landsberg's report, most of the literature dealing with the impacts of horse riding on trails does not describe how existing trails were constructed. It is assumed that the trails have developed from repeated use. However, in the CNP, horse riding occurs on tracks specifically constructed for vehicular access where, by design, impacts should be minimal. Terrain slope and trail slope may be issues in some environments but will be significantly different depending on how a trail has been constructed in relation to the slope. The Parks and Conservation Service is systematically closing existing management tracks constructed on poor substrates or vulnerable slopes and horse riders should expect to be excluded from these in the same way as everyone else.

In her review of Landsberg's report, Dr Beavis concluded that scientific evidence presented for excluding horses from trails in the CNP has significant flaws in that:

- specific impacts of horses on trail deterioration (in terms of both soil erosion and vegetation changes) have not been isolated from the impacts of other users on multi-use tracks; and
- the impact of use intensity and frequency by different users has not been quantified;

In Summary

- Most seeds found in horse manure are not viable after passing through a horses mouth and gut
- Most viable seeds found in horse manure fail to mature in harsh, dry conditions such as on Australian vehicle tracks
- Most large herbivores do not carry seeds in their hair or coats
- Horses really don't produce that much manure
- Horses, in the numbers using the CNP, have no more impact on formed management tracks than other permitted users

The ACT Equestrian Association would be more than happy to discuss the above comments further and at greater length if required.

We hope the next version of the Canberra Nature Park Draft Reserve Management Plan is less biased against horses and would welcome a meaningful discussion about opportunities for **increased access to Reserves that equestrians can currently only ride through or around and new access to reserves connected to the existing equestrian trail network.**

Christine Lawrence
President
ACT Equestrian Association
cflawrence@homemail.com.au
62885799

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cc Stuart Jeffress

Individual Canberra Nature Park Reserves

The description of recreation use of each reserve is not always consistent with Table 7.1, (p.78). The notes in red below reflect ACTEA's interpretation of Activity Declarations and the words "contains" and "in" in relation to some Reserves.

A Note: The CNP Draft consistently misnames the Bicentennial National Trail. Please do not use 'Bicentennial Trail', or 'National Bicentennial Trail'.

Mount Ainslie Nature Reserve p114

Recreation: The reserve contains numerous walking tracks and an **equestrian** track. There are several marked equestrian tracks in Ainslie NR linking through to Mt Majura NR.

Mount Majura Nature Reserve P116

Recreation: Heavily used by walkers, including those with dogs, runners, mountain bikers and organised events. Notifiable Instrument NI 2015-291 shows parts of equestrian trails in this area are in the Reserve, while some are on other lands.

Mulligans Flat Nature Reserve p120

Recreation: The fenced wildlife sanctuary attracts visitors, particularly those interested in wildlife conservation. The reserve is heavily used for walking and cycling, particularly on the Centenary Trail. The Bicentennial National Trail follows a management trail within the boundary of Little Mulligans parallel to Mulligans Flat Road from Duke Rd to the ACT boundary.

Kenny proposed Nature Reserve p132

Recreation: Until the area becomes a nature reserve, no public access is allowed. ACTEA is very keen to make provision for a horse riding loop in Kenny to compensate for the loss of connection across Flemington Road due to the Capital Metro.

Aranda Bushland Nature Reserve p138

Recreation: A number of tracks, including part of the Centenary and **Bicentennial National Trail** networks, are present in this reserve. Informal recreational use is high, including walking, running, cycling, dog-walking and **horse riding**. As far as ACTEA is aware horse riding is NOT permitted in Aranda NR and the Bicentennial National Trail is on the eastern verge of Bindubi Street.

Cooleman Ridge Nature Reserve P152

Recreation: The reserve contains a number of tracks, including part of the Centenary and **Bicentennial National Trail** networks. Informal recreational use is high, including walking, running, cycling, dog walking and **horse riding**. Horses are allowed on one through track only.

McQuoids Hill Nature Reserve [p154](#)

Recreation: There are a number of management tracks in the reserve and the ~~National Bicentennial National Trail~~ passes through the western side. Horse riders have access to one through track fenced off from the NR.

Mount Painter Nature Reserve [p156](#)

Recreation: The reserve has a number of walking tracks and formed vehicle (management) trails. An equestrian track ~~The Bicentennial National Trail~~ on the perimeter of the reserve also passes through the "Wildflower Triangle". An equestrian skirts the perimeter fence.

Oakey Hill Nature Reserve [P158](#)

Recreation: Oakey Hill is heavily used for recreation and informal tracks have developed. ~~The Bicentennial National Trail~~ is located on a management trail on the lower slopes. ~~There is only one through equestrian trail. The BNT does NOT traverse Oakey Hill.~~

The Pinnacle Nature Reserve [P160](#)

Recreation: The reserve has a high level of recreational use and an extensive network of formed vehicle (management) trails and walking tracks. The ~~National Bicentennial National Trail~~ passes around the perimeter of the reserve. ~~More correctly the Bicentennial National Trail makes a loop mostly within The Pinnacle Reserve.~~

Urambi Hills Nature Reserve [P162](#)

Recreation: There are numerous access tracks, including the ~~National Bicentennial National Trail~~ in the north. The reserve is used for walking, running and cycling. ~~There is only one through equestrian trail.~~

Farrer Ridge Nature Reserve [p176](#)

Recreation: With numerous walking tracks and formed vehicle (management) trails, the reserve has a high level of recreational use, including group events. Horses are allowed on identified horse trails ~~The equestrian trail skirts the boundary of the NR outside the reserve area along the back of Farrer houses.~~

Isaacs Ridge Nature Reserve [P178](#)

Recreation: Horse riding is allowed on designated horse riding trails. A network of multi use tracks, largely for mountain bike riding, is under construction in the adjacent pine plantation. ~~ACTEA is negotiating safer equestrian access to avoid the mountain bikes.~~

Mount Taylor Nature Reserve [p186](#)

Recreation: With an extensive network of formed vehicle (management) trails and walking tracks, including a formal walking track to the summit, Mt Taylor is heavily used for recreation, including for group events. Horse riding is allowed on identified horse riding tracks in the reserve. ~~There is one through equestrian trail on the western perimeter of the Reserve.~~

Wanniassa Hills Nature Reserve [p190](#)

Recreation: A number of tracks cross the reserve, including a **horse** riding track on the northern side. Dogs are allowed on leash. **Notifiable Instrument NI 2015-272 shows only a very short section of equestrian trail in Wanniassa Hills Nature Reserve along Long Gully Road.**

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