



Wednesday July 10, 2013

Ranger
Mummel Gulf National Park
National Parks and Wildlife Service
188W North Street
WALCHA NSW 2354

Dear Sir/Madam,

**Proposed amendments to the Mummel Gulf National Park plan of management -
submission as an objection**

The Colong Foundation objects in the strongest possible terms to the draft amendment of the Mummel Gulf plan of management that seeks to allow horse riding in declared wilderness areas. This draft amendment flies in the face of the existing National Parks and Wildlife Service (NPWS) policy on horse riding and wilderness management, as well as the *Wilderness Act, 1987*.

The Colong Foundation also objects to the two trial horse riding routes. The River Road and the Dicks Hut Fire Road are two trial routes not one. The draft amendment states in the background notes that only one pilot would be undertaken. One trial on two tracks implies that the proposal has been extended beyond what was initially agreed by the Government, especially when it was initially announced that only one horse riding trial would take place in NSW.

To reach the site of the Dicks Hut ruin on the Mummel River by Dicks Hut Fire Trail requires a descent of almost 500 metres in approximately two kilometres whether approached from either the west or east. The Dicks Hut area is difficult to access unlikely to be used by horse riders. The undisturbed old growth forests, particularly those that lie on a basalt substrate, would be at risk of weed invasion if the area is subjected to horse riding. The River Road is equally steep and unsuitable for riding. Any rider attempting a day trip using either or both proposed routes will exhaust their horse by the journey, particularly if it is an older horse.

The Foundation supports no camping with horses either around or below the site of the Dicks Hut ruin on Mummel River because these camp sites are too small. If riders do visit the ruin, then some may camp regardless of the provisions in the plan of management, rather than face the climb out of the narrow valley. The alternative route using the Bicentennial National Trail passes to the north around the wilderness is much less difficult and camping with horses is already permitted at New Country Swamp under the existing plan of management.

The wilderness horse riding trial is unnecessary

The amendment does not specify why it is necessary to conduct the horse riding trial in a wilderness area and whether the existing opportunities are well used. Clearly there has been no scientific input

into the draft amendment. There is no explanation of how the trial will work, how it will be assessed and what will happen after the two year trial. There are also no specifics regarding how many horses can be taken into a wilderness at any one time.

To determine whether there is a need for scientific research, the first step is to undertake a thorough review of the scientific literature of past research. At this point the large body of evidence regarding horse riding impacts on natural environments should establish that the trial in wilderness is unnecessary and inappropriate. Assuming for the sake of this discussion, that the obvious damage caused by horse riding to natural environments was not evident, then after completing a background literature review, a researcher would:

- Formulate a question to be answered by potential research;
- Write a null hypothesis;
- Identify the appropriate people/institutions to carry out the research and identify appropriate partners (i.e. involve researchers from Universities and/or government bodies with relevant expertise in the study area);
- Submit an application to a funding body for research that investigates/tests the null hypothesis;
- Prominently identify the funding source;
- Strive to minimize conflicts of interest and highlight any that exist;
- Commit to fully publishing how the research was conducted, the results obtained and the conclusions made in a high quality, peer reviewed scientific journal in the appropriate field.

The proposed horse riding trial falls well short of meeting the above research criteria on all counts. As a scientific project the trial is a waste of scarce conservation funds.

While the data may indeed show that a certain level of horse riding on a section of horse riding trail had caused a level of environmental damage, the interpretation of the data is already pre-determined and biased. The inevitable (allegedly scientific) conclusion will be that the level of ecological harm is less than the social and economic benefit of the horse riding. The trial has no triggers or standards for what is acceptable damage to a wilderness area or what the social or economic benefits would be to justify that damage. If they were, then surely these criteria would be used by off-road vehicle users, loggers, graziers and miners to seek access.

In effect, those who have initiated the trial believe that wilderness is not sacrosanct. We strongly disagree, wilderness and nature reserves are the last refuge for nature, and in these rare places management for nature conservation must take priority. Damage from recreation activity should be kept as low as reasonably achievable, and that requires the elimination of all high impact recreation activities, such as horse riding.

The application of adaptive management to justify impacts on wilderness is inappropriate. Under the Wilderness Act, wilderness areas must be managed so as to restore (if applicable) and to protect the unmodified state of the area and its plant and animal communities; to preserve the capacity of the area to evolve in the absence of significant human interference; and to permit opportunities for

solitude and self-reliant recreation (s.9). It would be unlawful for the NPWS to take a management action in wilderness, like permitting horse riding trial, which would cause or permit modification of the natural environment. The proposal to undertake adaptive management confirms that this trial is an inappropriate management action. The adaptive management anticipates that corrective action will be required to attempt to restore a modification to the natural environment that arose from the initial management action.

It should also be noted that the two year trial would provide only a glimpse of the harm that would ensue if horse riding were to be permanently permitted in wilderness areas. Decade by decade, horse riding would cause significant damage to the wilderness environment and remain present for visitors to these areas to experience.

The adage 'Prevention is better than cure' is applied in medicine, engineering, agriculture, economics, sociology and most other fields routinely, including park management. It is poor reserve management to attempt a 'cure' of a known problem, such as vegetation or stream damage from horse riding that should have been much better prevented (D. Cameron, *pers. comm* 2013).

Further, the field of medicine provides another pertinent adage: 'Only experiment on the patient as a last resort.' This entails eliminating all other options to obtain the data required, which in the case of horse impacts could be an experiment in a nearby state forest. To proceed with the proposed trial would be equivalent to operating on the patient in the full knowledge that the procedure will do more harm than good and is therefore unjustifiable (D. Cameron, *pers. comm* 2013). This draft amendment is only being proposed because of a political direction due to the horse lobby.

The 'pilot' as park management, not as science experiment

There is no rationale for this proposal, other than providing more horse riding access surplus to what is required to meet existing use. The small numbers of horse riders who visit the area are amply catered for on-park by the Bicentennial National Trail and New Country Swamp. In the reserve planning area horse riders can also use the Panhandle Fire Trail and parts of Porters Camp Road, Mummel Fire Trail and Daisy Patch Road. There is NO RATIONAL ARGUMENT to provide horse riding opportunities that are NOT NEEDED. Since when has any government built roads, railways, dams, power lines or sewage treatment works that are not needed? It never happens, except in the case of horse riding trails in protected wilderness areas and other 'white elephants' such as Sydney's monorail.

No significant demand has been identified for any of the proposed trials including the two tracks in the Mummel Wilderness. Even if there were demand, there is already vast supply of riding opportunities provided by the Bicentennial National Trail.

Horse riders are a small lobby that has an excessive range of opportunities. The Bicentennial National Trail cuts through Washpool, Guy Fawkes, Macleay Gorges, Werrikimbe, Curracabundi, Murruin areas and cancelled protection of the NPWS identified Tabletop and Deua Valley wilderness areas for their benefit.

Now there are proposals for winding back wilderness protection (and ultimate destruction of the wilderness idea) to accommodate additional opportunities for horse riding, including in Mummel Gulf National Park. Horse riding opportunities are not best provided in remote wilderness areas. There is no evidence that the existing opportunities in remote areas are inadequate for horse riding. There is no evidence either of the demand being great or the supply being inadequate.

It is possible that the 'pilot' may have been invented for a political purpose, as a tactic to delay and defer decision-making until politicians and the community come to their senses regarding this inappropriate proposal. Such speculation about the true purpose of the trial is simply wishful thinking. The nature of this controversial trial should have been spelt out in the draft amendment to the plan of management in more detail.

Environmental impacts

The environmental impact of horse riding on vegetation and soils in wilderness areas is well recognised. Horse riding causes soil compaction, erosion, introduces weeds through manure and causes disturbance to wilderness appreciation (e.g. Invasive Species Council, 2012).

Wilderness use must be self-reliant and compatible with the protection of the natural and cultural values of the area. The 'wait and see what happens' approach to the environmental impacts of horse riding (i.e. adaptive management) is unacceptable. There is sufficient evidence to establish a strong case against horse riding in Mummel Gulf National Park.

Horse-riding in national parks and wilderness areas would increase dispersion of weeds.

Riding horses access a diverse range of feed sources including pastures that often contain weed species that are eaten by horses and also dried stock feeds also often contains weed seeds as well (Landsberg et al. 2001).

Weed seeds (a substantial proportion of some species) can survive passage through a horse (St John-Sweeting and Morris 1991, Taylor 1995, Cosyns and Hoffman 2005) and may be excreted several days after ingestion with a peak at 3 to 5 days (St John-Sweeting and Morris 1991). One study found that horses can excrete more than 1000 viable seeds a day (Taylor 1995) and another found almost 400 seeds per litre of dung (Cosyns and Hoffman 2005). Results from 11 international studies show that seed from at least 216 species is viable after passing through horses, and 45 of these species are serious environmental weeds (Pickering et al. 2010).

Horses will even accidentally ingest the seeds of unpalatable weeds. In *Noxious Weeds of Australia*, Parsons and Cuthbertson (2001) note of ragwort: 'Animals do not usually eat ragwort heads when in seed but this can happen accidentally when stock are fed contaminated hay. In such cases, seedlings have been observed growing from horse dung...'

Weed seeds can also be introduced attached to the horse (especially the tail) or horse gear (Liddle and Elgar 1984). Noogoora burr (*Xanthium occidentale*) has been observed to be carried in horse hair 16 days after exposure to a marked paddock.

An adult horse is a virtual mobile fertiliser plant, depositing 17-26 kg of dung and 5-7 l of urine a day (Matsui et al. 2003, cited in Pickering et al. 2010). Richard Smallwood of the Australian Horse Alliance claim of 'minimal, minimal' environmental impact (SMH, 18 June 2012) is contradicted by this amount of equine waste, which is large relative to that of other weed vectors.

Horse manure and urine provides nutrients, moisture and protection (e.g. from frost) for seed germination and addition of nutrients to soils and waters, particularly in infertile environments, favours weed establishment (Landsberg et al. 2001; Pickering et al. 2010).

Weed seeds dropped from horses may survive several years in the soil until conditions suit their establishment (Campbell and Gibson 2001; Torn et al. 2010) and be dispersed into new areas by water flow, erosion or animals.

Horses damage vegetation, create bare patches and cause soil disturbance, which opens up space for weeds, increases solar radiation and increases the availability of nutrients (Phillips and Newsome 2001, Quinn et al. 2010). Soil disturbance is a major contributor to weed invasion, and horse hoofs are far more damaging than boots.

Studies and observations confirm that horse riding causes significant soil loss and vegetation damage in park areas. In Ku-ring-gai National Park for example, horse riding caused a metre deep erosion channel on the Sandy Kooyong horse trail in only five years of use. Similar excavations are found in Garigal National Park. These impacts arise because the average horse weight is seven times the average walker and being steel shod, hooves cause much greater the damage to tracks than the feet of walkers. Horses spread weeds mainly through their stomachs. Seeds are dispersed for 10 to 14 days after ingestion and pass through in high levels for the first four days.

Unlike vehicles, horses can go just about anywhere, so that the above impacts can cover wide areas. Horse riding impacts are so severe that horse riding should be banned first and foremost, and in accordance with the Wilderness Act, from all wilderness areas, and secondly, national parks and in other areas where nature conservation is a primary objective.

The Precautionary Principle

The NPWS has ignored their responsibilities under the precautionary principle when considering this proposed draft amendment to the plan of management. The application of adaptive management techniques outlined in the strategic directions document seeks to reverse the order of impact assessment that NPWS is required by the *National Parks and Wildlife Act, 1974* to undertake in determining a management action. The NPWS seeks to reverse this duty care and has not adequately proven that horse riding is a negligible threat to wilderness areas. There is a large body of evidence that establishes that horse riding is a significant threat to wilderness areas. The impacts arising from horse riding activities that will occur due to the strategic directions document are to be managed after the damage has occurred through adaptive management.

In 2009, the Chief Judge of the Land and Environment Court, Brian Preston explained that the precautionary principle would be triggered when "there is a threat of serious or irreversible environmental damage and there is the requisite degree of scientific uncertainty." In this situation "a

decision-maker must assume that the threat of serious environmental damage is no longer uncertain but a reality. The burden of showing that this threat does not in fact exist or is negligible, effectively reverts to the proponent of the project.” The NPWS is wrong to reverse this duty of care through adaptive management, given that the NPWS 1999 advice that horse riding is a threat wilderness areas.

Self-reliant recreation

Appropriate self-reliant recreation activities are defined not only as to the equipment used but also to the conduct of those activities. Appropriate self-reliant recreation:

- does not require human modification of the landscape (s.9(a), Wilderness Act);
- does not have an adverse environmental impact (s.9(b), Wilderness Act);
- does not require a motor or mechanical aid (s.9(c), Wilderness Act);
- does not involve large groups of people (s.9(c), Wilderness Act; not solitude); and
- does not include use of an animal (s.9(c), Wilderness Act, not self).

Horse riding is not regarded as self-reliant because the means of travel is not powered by a person and is regarded as inappropriate because it is not undertaken within any formal wilderness areas in Australia and its impacts generally degrade wilderness areas. The Australian Alps Horse Riding Code specifies use of metal fencing, electric fencing and power energisers to minimise the impacts of horse riding. Use of such equipment is not self-reliant and will modify the natural environment.

The adaptive management framework

The draft plan of management does not specify the strategic adaptive management framework regarding:

- the monitoring of key indicators against baseline data;
- the identification of acceptable thresholds; and
- the determination of appropriate management responses.

There is no adequate baseline data set for ANY of the trials or trails proposed. Without these data, the NPWS is not in a position to identify key indicators, thresholds and management responses. Strategic adaptive management without baseline data cannot work, and as previously stated, its application is contrary to the provisions of the Wilderness Act.

Conclusion

The proposed draft amendment and its horse riding routes are strongly opposed by the Colong Foundation because of the damage to the environment in declared wilderness, the small demand for horse riding opportunities being very much less than the supply of horse riding opportunities, and because it is illegal and contrary to the spirit and intent of the *Wilderness Act, 1987*.

The Foundation is very disappointed with the NPWS for not spelling out the foolish nature of the *Strategic Directions for Horse Riding in NSW National Parks and Reserves* to the NSW Government. The NPWS has lost its credibility with the conservation movement in this regard.

Thank you for the opportunity to make a submission.

Yours sincerely,

A handwritten signature in black ink, appearing to read 'K. Muir', written in a cursive style.

Keith Muir

Director

The Colong Foundation for Wilderness Ltd