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INQUIRY INTO THE MANAGEMENT OF PUBLIC LAND IN NEW SOUTH WALES

General Purpose Standing Committee No. 5
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Macquarie St
Sydney NSW 2000

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ATTACHMENT A

Submission to the Natural Resources Commission on how best to conserve, protect, use and manage the river red gum forests of the Riverina in New South Wales, MacNally, R and Cunningham, Australian Centre for Biodiversity, Monash University, Melbourne, October 2009.

ATTACHMENT B

North East Forest Alliance submission to Inquiry into the Australian forestry industry, Dailan Pugh, North East Forest Alliance, March 2011

ATTACHMENT C

Response to Tim Flannery Beautiful Lies Published in Correspondence to Quarterly Essay, John Benson, March 2004

ATTACHMENT D

Submission to the draft strategic directions for horse riding in NSW national parks and reserves, Keith Muir, Colong Foundation for Wilderness, June 2012

ALL TERMS OF REFERENCE

This Upper House Inquiry will favour the critics of national parks and sustainable land management practices

This inquiry seeks to question how society has preserved certain parts of the natural environment, whether in some cases it should be preserved, or whether it should instead be exploited, even while being set aside for conservation. This inquiry appears to be based upon the presumption that nature is but a resource for exploitation; that nature has little intrinsic value; and also too many rights.

The “pre-Copernican” view that the environment revolves around us, even to the extent that climate change and other forms of environmental degradation are denied, is dangerous nonsense.

Sensible citizens who would oppose the application of a “pre-Copernican” view of the natural environment are unlikely to make a submission to this Inquiry. Many find the terms of reference of this inquiry abhorrent. The vast majority of visitors and users of public lands, who are content with existing arrangements, also are unlikely to comment.

In the particular case of parks and reserve management, there are always interests who would like to get access to the parks either for resources or other commercial opportunities, and the tourist industry is no exception. These public land user groups which include park visitor groups, such as horse riders and off-road vehicle users, deny that their particular forms of use or access has or would have any significant adverse impacts on parks and reserves.

Those groups, who would gain from implementation of Government policies for further access and exploitation of public lands, including hunting, fishing, logging, stock grazing, vehicle and horse riding have an incentive to make detailed submissions to this Inquiry.

Another key aspect of this Inquiry appears to be the creation of political momentum that would change public land management practice in ways contrary to the interests of nature conservation.

The Federal Environment Minister, the Hon Tony Burke addressing the Sydney Institute on 20th July 2011 said ‘it isn’t new to have controversy over whether or not new lands are put into National Parks. That’s actually pretty standard. But an area, once protected, usually has the principle apply that there shall be “no backward steps”. New areas for National Parks frequently have existing commercial uses that are phased out or scaled back over time. But once those commercial uses end we don’t talk about going back on it.’

This Inquiry seeks to do nothing less than to collapse the long-standing political consensus over management of national parks, wilderness areas and nature reserves. This inquiry is about reversing the nature conservation gains on public land.

The terms of reference and the membership of the committee are biased toward findings that will confirm greater resource exploitation of public lands set aside for conservation and identify faults with the reservation processes of particular parks and reserves in NSW. Many

citizen conservationists from all political backgrounds are aware of the pre-conceived intent of this Inquiry and will have nothing to do with the Committee's processes.

The Colong Foundation asks that these views of the silent majority who support the long-standing political consensus on national park management be noted.

INTRODUCTION

In his book *Sustainability* (2006), Alex Colley explains that humanity, like all forms of life, is entirely dependent on natural resources. If our resource use exceeds regeneration, then society will decline. Australian society has generally failed to replenish its natural resources, but we have succeeded to preserve to some extent parts of the natural environment for the future.

In this submission the Colong Foundation for Wilderness argues that any proposed undertaking of multiple use management for the exploitation of natural resources in national parks and reserves would defeat the nature conservation purpose of the reservation of these areas.

Instead of exploiting its national parks and reserves, society must continue to encourage sustainable multiple use of farms, forests and Crown reserves where nature conservation goes hand in hand with primary production and conservation management practice. For example, tree plantations on grazing land should be facilitated to arrest soil salinity and erosion. The 15-20 million trees estimated to be required would also provide ample timber for prosperity and to a small extent help to slow climate change.

While the multiple use paradigm is an appropriate approach to land resource conservation and management for our State Forests and Crown reserves, in national parks, however, it would defeat the purpose of setting lands aside from development for nature.

On state and regional levels, national parks, nature reserves and wilderness areas occupy one end of a land use spectrum that ranges from Central Business Districts and heavy industry such as Wollongong's steel works to vast wilderness areas like the Wollemi.

While it is relatively easy to increase the intensity of development of a natural area within that land use spectrum, by land clearing for example, it is politically and ecologically very difficult to reduce it.

It is impossible to convert an urban area into a wilderness but not to change wilderness into agricultural land. The conversion of parks and reserves into multiple use zones redefines protected areas for the benefit of narrow sectional interests, against the broader public interest of nature conservation.

The claim that national park should not be the default model for the reservation of public land would create reserves under the *National Parks and Wildlife Act, 1974* contrary to the primary heritage conservation purposes of the current Act. The purposes of resources extraction and use are hostile to nature conservation in the majority of cases. Compromises have been limited to underground mining in the case of state conservation area designation

and high use visitation in the case of the regional park designation. The proposals put forward by Mr Max Rheese of the Australian Environment Foundation would be compatible with the current legislation regulating the management of Crown Lands and State Forests where natural resource conservation is undertaken within a paradigm of resource exploitation. Placing such activities as logging and stock grazing in parks, however, would make no sense administratively as park officers are not foresters or graziers, nor should they have such duties. It would be more honest to revoke a national park than to degrade the currency of the reservation.

National Parks are the very last places on earth where nature-centred values prevail over use-centred perspectives. They remain places for nature conservation, where natural beauty and ecological integrity are valued above profit and use. Such a land management practice is the most practical approach to nature conservation for our urban-industrial society. Without wilderness, our urban-industrial culture becomes an inescapable prison without boundaries across NSW.

The continued expansion of the NSW economy will place ever more demands on natural resources, produced from once natural lands that were cleared for farming or other forms of exploitation. It follows that the pressure on remaining natural areas is also ever increasing, which is why national parks, land clearing laws and other natural resource conservation measures are essential bulwarks to hold back these economic pressures.

Unprotected natural areas are being constantly further exploited, endangering or causing the extinction of many species. In this context, national parks, nature reserves and wilderness are protected under law as the last bastions for nature. These areas are our bequest to future generations. Once we begin to exploit these precious areas, society is set upon the downward spiral into decline. It is the environmental equivalent of selling cheap Government Bonds to gain cash flow; it heralds decline.

Wilderness is the word used by the Colong Foundation to describe the larger remnants of the natural environment. It is generally accepted that the minimum area of such remnants is about 5,000 hectares. The reservation of smaller remnants is very desirable, and sometimes essential for the preservation of some threatened species, ecological communities and outstanding scenery, but the smaller areas, though they preserve flora and some fauna, are more vulnerable to the intrusion of both human and feral predators. The margins of wilderness areas are equally vulnerable, as the Nattai at Hilltop is from the Southern Highland Shooting Complex, but most wilderness areas afford good, healthy habitats for native wildlife.

The only secure habitat is a fenced area within which all feral wildlife has been eliminated and the fence is adequately maintained. As the troubles of Earth Sanctuaries prove, this is beyond the capacity of private enterprise, and an outlay not favoured by governments. A more recent example from July this year is the predator fence constructed by volunteers around Queensland's Currawinya National Park. It was damaged by the recent floods allowing feral cats to nearly wipe out the bilbies protected inside.

The protection afforded to native flora and fauna in national parks and wilderness is the best practical alternative to intensive wildlife management methods that rely on uncertain, much greater inputs of capital and human resources.

National parks are the very best idea the United States of America ever had, although the Colong Foundation believes our Royal National Park was the first. Dr Geoff Mosley is preparing a World Heritage nomination proposal for this park that will rest on this argument.

For 44 years the Colong Foundation has successfully campaigned for wilderness. It has been supported by the public and by the NSW Parliament. The Inquiry's terms of reference imply that there is something deficient in the funding and management of wilderness, national parks and reserves. That may be so, but it is the best form of nature conservation management for public land.

Vast areas of Australia are subject to serious environmental degradation. Most of Australia's cropping soils have probably lost about half their original topsoil organic matter. Australia's Commonwealth Scientific and Industrial Research Organisation (CSIRO) estimates that land degradation has cost Australian's about \$1 billion annually. In temperate ecosystems, less than 2% of the original grasslands remain. It is estimated that Australia gains around 20 new pests or diseases each year. Some well-known examples include cane toads, rabbits, willows and, more recently, black striped mussels and red fire ants.

The ecological footprint of NSW residents increased from 6.35 hectares per capita in 1998–99 to 7.02 ha in 2003–04.

At the Kyoto Conference 31 developed nations agreed to limit their emissions by the year 2012 to targets below the levels of 1990. Australia, Ireland and Norway were allowed to increase their emissions. The targets could, however, be increased if additional emissions were offset by the establishment of "carbon sinks", which Australia was to achieve by stopping land clearing.

The NSW Government may be about to rip up these arrangements, established by the Howard Government and confirmed by Opposition Leader Tony Abbott through his support for Kyoto-2. The current debate over the Federal Government's recently deployed tax measures to reduce carbon emissions also occurs as if the Kyoto debate had never happened!

Very little our society does is ecologically sustainable. Society needs, we all need to continue to make greater efforts to restructure its unsustainable systems to address the pressing environmental imperatives that face us.

IMPROVED FUNDING FOR PROTECTED AREAS

Improved management of parks and reserves should be funded by the elimination of public expenditure on environmentally destructive activities, like logging native forests, particularly on public lands, and the imposition of taxes on polluting activities, like the carbon tax. Such mechanisms enable society to restructure towards ecological sustainability, the sustainability upon which our economic (pre-Copernican) lives depend. When such reform is undertaken during times of economic wellbeing, those who are disadvantaged can be more than adequately compensated, just as the compensation that accompanies the carbon tax is being provided for low and middle income earners.

By devoting a realistic amount of the government income created through reducing environmental destruction and pollution to nature conservation, national parks could have an enhanced income stream. It would also build a stronger relationship between the tax-payer and the national park estate.

These two mechanisms (elimination of subsidies for environmental destruction and introduction of pollution taxes) would ensure that the economic surplus gained by depleting or degrading natural resources fairly compensates the natural environment.

TERMS OF REFERENCE 1

RIVER RED GUM PARKS

River Red Gum Parks were created in the Southern Riverina Subregion where there are very few national parks and 80 per cent of the land has been cleared. This community and Region deserves its share of national parks. The remaining forests and woodlands in this landscape support many endangered species. The 63 vertebrate fauna species listed as threatened in this Region rightly deserve protection in national parks where the management priority is nature conservation.

The reservation of River Red Gum Forests in the Southern Riverina secured these forests for nature conservation, as well as for all Australians to enjoy. On May 19, 2010 a new 107,000 hectare river red gum reserve system was created. The former Environment Minister, Frank Sartor, found an additional \$17 million on top of an industry assistance package of \$80M to secure a 42,000 hectare Millewa National Park. The Millewa National Park directly adjoins the Barmah National Park in Victoria. Together these national parks protect a 70,000 hectare Ramsar listed wetland area. The wetland provides significant breeding habitat for 18 migratory bird species listed under international agreements with China, Japan and Korea, including the Garganey Teal, Latham's Snipe and the Common Sandpiper.

More than \$50M of that financial package was allocated to support timber industry restructuring, a far more generous transitional arrangement than any made previously. To open up these forests to grazing and logging would throw away that government investment in nature conservation.

Recent research provides no evidence of environmental benefits from commercial thinning to River Red Gum forests or woodlands (see **Appendix A**). Very dense stands of River Red Gums are very rare on the Murray River floodplain. Regenerating River Red Gum forests self-thin over time, as they have done for millennia.

Thinning of River Red Gum forests is unlikely to reduce their susceptibility to dieback, as increased water availability through flooding is necessary to reduce dieback.

National Parks are not needed for firewood harvesting. The NSW Red Gum IFOA provides for logging of 17,533 tonnes of residue per annum and an additional 20,000 tonnes of early thinnings in 2012-2013. There is also an extensive Red Gum industry on private land also providing firewood.

Large areas of State Forests are available for domestic firewood collection in the Riverina. More than 35,000 hectares are open in Koondrook-Perricoota State Forest, and additional large areas in Gunbower State Forest in Victoria, plus private lands.

Further, any proposal for grazing in the River Red Gum parks should be rejected due to the significant environmental damage that this activity would cause. Cattle target the two most sensitive ecosystems - wetlands and sandhills. In dry times, cattle move into the wetlands for palatable feed. Cattle cause pugging of the soil, soil erosion and reduction in water quality.

During wet times, cattle move onto the sandhills which are very sensitive and culturally significant areas (frequently containing traditional burial sites) where they again cause erosion and further degradation.

The fire hazards from Silver Wattle and Brush Cherry are not reduced by cattle grazing as these plants are not eaten by cattle. The remaining ground layer of vegetation in River Red Gum forests is generally sparse and doesn't represent a fire risk.

Proposals for Multiple Use in Protected River Red Gums are Flawed

The evidence gathered so far at the hearings held in Deniliquin on August 1st and 2nd has incorrectly applied multiple use of natural resources to a small regional national park estate. The multiple use concept should instead be applied to the 9.7 million hectare Riverina Bioregion as a whole.

As previously stated, multiple use is best applied at the regional level, not to the only land category set aside for nature. To permit multiple use in a national park defeats the nature conservation purpose of its reservation.

The Riverina Bioregion is a very high national conservation priority for the following reasons:

- It is very poorly reserved, with only 1.9% of the bioregion in NSW protected in permanent conservation reserves (CAPAD 2006) prior to the Red Gum and Yanga decisions.
- It has been identified as one of the most highly threatened bioregions in the country by the National Land and Water Resources Audit (NHT 2002), with more than 80% of the subregion along the Murray River having been cleared of native vegetation since 1788 (NSW SOE 2006).
- It has been recognised as one of the highest priority bioregions for new conservation reserves in Australia by the National Reserve System Directions report (NHT 2002, NRMMC 2005).
- It has been subject to very high extinction rates, with at least 16 vertebrate fauna now considered extinct in the region and a further 63 vertebrate fauna species threatened with extinction.

There are only about 115,000 hectares of national park estate in the bioregion that contain River Red Gum forests and woodlands. To achieve the JANIS criteria for reservation of River Red Gum forest and woodland would require the reservation of 200,000 hectares (NRC, Dec 2009, pg 106).

The river red gum reserve system is more than 40% under the JANIS reservation target. The proposals for multiple use should be pursued on other land tenure, not in river red gum national parks that are below the minimum reservation target.

The way forward would be to plant more river red gums through the Carbon Farming Initiative (CFI) that would benefit landholders as well as the environment (the Hon Mark Dreyfus, 17 August 2012 media release). Carbon Farming Initiative (CFI) would benefit landholders as well as the red gum environment.

The Carbon Farming Initiative (CFI) allows farmers and land managers to earn carbon credits by storing carbon or reducing greenhouse gas emissions on the land. These credits can then be sold to people and businesses wishing to offset their emissions.

Programs for carbon storage on farms will result in the price of firewood dropping towards parity with other energy resources.

Several submitters have misrepresented the intrinsic purpose of national parks and also misrepresented the Natural Resources Commission recommendations regarding the appropriate application of forest management principles. Resource extraction, such as thinning, grazing or logging, is not appropriate in a national park.

To my knowledge there is no wilderness in the River Red Gum Forests or Woodlands. These forests would, however, benefit by conservation management through rewilding processes, such as environmental flows that replicate natural flow patterns, pest management to remove exotic plants and animals, and use of fire for environmental outcomes. On the last point, it is clear that most forests and woodlands in NSW have not been subject to frequent (less than 10 year) burns in times before settlement (Benson, J.S. and Redpath, P.A., 1997). Nature-focussed management, not human-focussed management, should remain the foundation of national park management.

It is also nature based management that creates the national park cachet that is worth marketing and tourism promotion. Tourists do not want to be depressed by degraded forests subjected to resource exploitation while on holidays.

Further, Government's create national parks for the protection of biodiversity and natural heritage protection. The tourism is a bonus, not the reason for the park and tourists are attracted to and enjoy the difference.

(See also ToR 3 – logging national parks and reserves and ToR 2 – grazing stock in national parks)

NORTHERN HARDWOOD FORESTS

TERMS OF REFERENCE 1 CONT

Dailan Pugh (2011) cogently argues that native forests have use and non-use values. Both these values need to be taken into account when identifying the costs and benefits to the community from the use of public forests of northern NSW. Use values include timber, water supply, carbon storage, recreation and tourism, all of which are usually mutually compatible except logging. Non-use values include aesthetics, wildlife, ecological function value, option value, existence value and bequest value.

The Inquiry needs to acknowledge that logging of public native forests in NSW does not pay a resource rent to the community as Forests NSW (hardwoods division) is operating at a considerable financial loss to the state government. It also needs to be recognised that costs to Government are escalating and timber volumes declining. The Inquiry needs to identify ways to remove public subsidies granted to the timber industry.

The 2011 submission to the Inquiry into the Australian Forestry Industry by the North East Forest Alliance offers insight into the process of conversion of state forests and crown lands into national parks in the hardwood forests of northern NSW (**Attachment B**).

The process of reservation of the hardwood forests of northern NSW was comprehensive and involved consideration of social and economic impacts. Compensation was paid and an economic transition package provided to permit conservation outcomes.

The 1996 NSW Parliamentary Briefing Paper on the forest reform process concluded that 'Whilst the timber industry has been portrayed as one of conflict, with images of unemployed young people blockading logging machinery the staple diet of the media, the shape and image of the industry is changing. The package of forest reform as announced by the Carr Government during 1995 has received support from many sectors of the industry. Mr Col Dorber of the NSW Forest Products Association, a leading industry association, and the Construction, Forestry, Mining and Energy Union have both supported the reforms.'

Since the forest restructuring process, the costs of logging native hardwood forests in northern NSW have escalated while economic returns have declined.

Opening up national parks to logging would accelerate these trends, as costs would increase due to the presumed prescription of a lower intensity of logging in these areas. All that would be achieved is the destruction of world-class park system to prop up a dying industry.

The future for forestry in Australia lies in plantations, not native forests.

The level of industry and social compensation set up by the NSW Government under the National Forest Policy (1992) was unlike the Wran Government's rainforest decisions of 1982 and 1984 that phased out rainforest logging. The only transition scheme for the rainforests was established by the NSW Forestry Commission. It was an expensive pine plantation for the Munro and Lever's Grevillea timber mill, a mill that subsequently closed down.

This inquiry should note that the strident opposition to rainforest conservation of the 1970s by the local residents on the NSW north coast has vanished. Jim Somerville (2005)

explains: 'As one enters Kyogle, the timber town which stood to lose most from the end of logging in the proposed Border Ranges National Park, there is now a large sign – *Welcome to Kyogle, Gateway to the Rainforest*. The proliferation of World Heritage Rainforest signs throughout the district is indicative of the now recognised value of rainforest in tourism promotion.'

The rainforests of the north coast are now in world heritage listed national parks and fondly appreciated by everyone. The native hardwood forests of northern NSW also merit world heritage listing, in recognition of their outstanding universal value.

This year, a Northeast NSW Eucalypt Assessment Project was completed by the National Parks Association of NSW that assessed the world heritage values of these forests (Boudicca Cerese, 2012). It found that the north coast forests have 143 species of eucalypt, of which 43 are endemic and 21 threatened. There are 159 eucalypt forest and woodland communities. Eleven endangered plant communities have a eucalypt component. Eucalypt forests on the north coast provide habitat for 695 vertebrate fauna, including 148 threatened species. There are 3412 native plant species in these forests and 231 of those are threatened species.

In the foreword to this report, Peter Hitchcock observed that '...increasingly many Australians have come to recognise [eucalypts] as a quintessential part of Australia's natural heritage... This report provides the first comprehensive case for recognition of the subtropical eucalypt forests of Australia as an important and integral part of the story of eucalypts as World Heritage.' Given time, the conservation values of the reserved hardwood forests will become as recognised as the rainforests.

(See also ToR 3 – logging national parks and reserves)

TERMS OF REFERENCE 2

The presumption of this term of reference, that lands reserved under the *National Parks and Wildlife Act, 1974* and the *Wilderness Act, 1987* are not managed or poorly managed is incorrect. National parks, nature reserves and wilderness areas are well managed by dedicated staff.

The following remarks are provided to address some of the issues and criticisms that may come up under this term of reference.

PEST SPECIES MANAGEMENT

Pest species are animals (including invertebrates) and plants that have negative environmental, economic and social impacts. In parks, pests may have impacts across the range of park values, including impacts on biodiversity, cultural heritage, catchment and scenic values.

There are very serious vertebrate pest problems across the entire continent. It's not a problem restricted to national parks. A rational response to this environmental threat requires well-planned and coordinated programs with specific goals of environmental impact

reduction, using effective and humane methods, and with monitoring to assess whether goals are being met.

Pests are among the greatest threats to biodiversity. In New South Wales, by 2007 they had been identified as a threat to 657 of 945 (70%) species, populations and communities listed under the *Threatened Species Conservation Act 1995*; more than any other process except the destruction and disturbance of native vegetation. Minimising the impacts of pests on biodiversity is thus the main objective of the National Parks and Wildlife Group pest management.

Pests can also have significant impacts on the economic values of neighbouring lands. The National Parks and Wildlife Group seeks to address these impacts when setting management priorities and significant resources are committed towards landscape-wide pest programs, including wild dogs (e.g. the Blue Mountains Region - Pest Management Strategy, 2007 provides the only wild dog management in the region).

The National Parks and Wildlife Group's targeted weed programs have been successful in removing particular 'iconic' weeds, motivating community involvement and active control. Where individual weed species programs are undertaken, some have expanded to include the control a host of weeds impacting on a particular area, e.g. the Great Grose Gorse Walk has developed into the Great Grose Weed Walk.

The mantra of wilderness opponents, that wilderness is a refuge for weeds and pest animals is generally incorrect. Pests are controlled in wilderness as they are on all public lands, and are less prevalent in well managed wild places.

Wilderness is not pristine but it is the best, least disturbed bush that is left, and society should do all it can to protect these areas, including adequate pest management. Eradicating wilderness by opening it up to horse riding, 4WD vehicles and trail bikes can only make the pest management task harder as these vehicles are vectors for weeds.

The Colong Foundation strongly supports appropriate and effective weed control and humane culling of all exotic pests, when approved by a park plan of management.

Weeds, such as blackberries and willows, can be effectively controlled when volunteers and professional pest controllers work co-operatively.

The National Parks and Wildlife Group employs highly qualified pest control officers that can kill hundreds of vertebrate pests a day. For example, through the use of helicopters they can eradicate hundreds of goats in a few hours. Amateur hunters in a ground-based operation can only cover a few hectares, provided they have the sufficient fitness to safely traverse rugged park terrain.

Supervised hunting activities actually restrict effective control of pest species by diverting limited park staff and resources. Even if feral animals are located during these hunting forays, amateur hunters will find it difficult to get a clear shot in forested parks. Animals will be maimed and suffer horrible deaths as a result.

In 2010-11 the Game Council issued 15,080 hunting licences and reported 14,161 animals killed on public land or 0.9 pests per hunting trip. Some 46% of the animals shot were

rabbits, about 20% were goats and about 16% were pigs. Wild dogs, which are one of the biggest problems for landholders made up just 0.5% of all animals taken (Game Council Ann. Rpt., pgs 13 & 15). The annual budget for the Game Council is \$2.5 million, so each pest animal killed on public land cost \$176.50.

These figures demonstrate ground-based recreational hunting is an ineffective means of feral animal control. Removing the occasional rabbit, goat or pig using is a waste of public money and time.

The Shooters and Fishers Party allege that the impact by recreational hunters on pest and feral animal populations has been proven as every pest animal killed counts. They also say that shooting ducks is appropriate because there are millions of ducks and the ones hunters shoot would die anyway. Unlike native ducks, whose long-term population levels are in decline, feral animal populations are on the increase and require effective control. To control feral animals, the techniques used must remove over half of a population annually. Hunting just doesn't have any positive impact on vertebrate pest populations.

Recommendations on vertebrate pest management (from the NPA submission to the 2002 Upper House Inquiry into the management of feral animals):

- 1 There should be integrated pest-species control regimes, based on specific action plans, covering natural geographic areas such as whole catchments or bioregions.
- 2 More detailed information, more study is needed into the ecology of certain feral animals, e.g. foxes.
- 3 Much more work needs to be done into the development of biological control agents and the use of sterilisation agents.
- 4 There should be adequate, enforceable deterrents against the release of animals into the wild.

The cost of removal/destruction of animals released, or escaping from custody, should be clearly the responsibility of and borne by the owner, who should also be subject to prosecution.

- 5 Shooting is still one of the most effective and humane methods for the eradication/control of large feral animals, including horses, as long as sufficient calibre rifles and qualified shooters are used.
The Committee should recommend against the ban on aerial shooting of horses.
- 6 No aerial or surface use of poisons (1080) should be permitted.
- 7 1080 should only be targeted at canids (foxes and dogs) and, if used, should only be placed in special bait stations under more than 10 cm of soil.
No more than one bait per bait station should be used.
The quantity of 1080 per bait should be reduced below 3 mg - the exact quantity - so as to avoid the accidental by-kill of *Dasyuris maculatus* as determined by recent scientific measurement.
- 8 Animals killed by poison should be collected and taken out of the surface foodchain by being buried at least 50 cm below the ground.

- 9 All baiting programs (whether to protect stock or wildlife) should only be a component of a larger, long-term, ongoing action plan which includes the use of other, appropriate management techniques.
- 10 Greater resources should be applied to control of feral animals, and
- 11 More rational, cross-jurisdictional and uniform sets of legislative procedures should be formulated for the control of pest species.

GRAZING STOCK IN NATIONAL PARKS

TERMS OF REFERENCE 2 CONT

There is over 60 years worth of scientific research and government reports showing that cattle affect water catchments, soil and nature conservation values, and spoil visitors' enjoyment of national parks.

In particular, cattle:

- Trample stream-banks, springs and soaks.
- Damage and destroy fragile alpine mossbeds.
- Pollute water.
- Create tracks.
- Cause soil erosion.
- Reduce what should be spectacular wildflower displays.
- Spread weeds.
- Are known to be a significant threat to a number of rare and threatened plants and animals, and plant communities.
- Cover areas in cowpats and spoil the enjoyment of the area for visitors.

Source: Department of Sustainability and Environment Q&A, 2005, on VNPA website, ref below:

<http://vnpa.org.au/page/publications/fact-sheets/faq-sheet--cattle-grazing-in-the-alps>

The evidence of grazing impacts from Victoria

Two reports to government agencies (Parks Victoria 1998 and DSE 1997) made it clear that cattle grazing should not continue in the Alpine National Park.

There are also numerous peer-reviewed studies demonstrating the different impacts of cattle grazing on the alpine environment. The following quotes are extracts from some of these studies.

"Continued grazing is an undoubted cost to national park values, and, indeed, compromises national park management. Any claims made with respect to the benefits of grazing to alpine ecosystems are not supported by scientific evidence."
Williams, R. J. Papst, W. A. and Wahren, C-H (1997) The Impact of Cattle Grazing on Alpine and Sub-alpine Plant Communities of the Bogong High Plains. Report to the Dept of Natural Resources and Environment, Victoria, p40.

"The alpine and sub-alpine ecosystems and landscapes of south-eastern Australia

are significant to all Australians because of their inherent value for nature conservation, water-yielding capacity, landscape and wilderness values and for recreation, as well as for their cultural history of human usage."

Groves, R. H. (1998) Grazing in the Victorian High Country. Report to Parks Victoria, p3.

"There is no scientific reason why grazing by non-native animals should not have been excluded from the Victorian high country as early as 40 years ago. That grazing under licence has persisted in Victoria to the present is an indictment of Victorian land management authorities, including Parks Victoria and its predecessors, who have failed to take into account the scientific evidence available and give it its due in the politics of making decisions on land management."

Groves, R. H. (1998) Grazing in the Victorian High Country. Report to Parks Victoria, p6.

The following are a few quotes from the 60 years of scientific studies relating to alpine grazing:

"It is concluded, therefore, that present-day grazing in the Australian alps is not consistent with the preservation and improvement of catchment values." (p.12)

Costin, A. B. The Grazing Factor and the Maintenance of Catchment Values in the Australian Alps. January 1958.

"The condition of the vegetation and soil in the Loch-Hotham area (now protected from grazing) has noticeably improved during the last 20 years. Most bogs and snowpatches are also recovering."

"On the more extensive Bogong High Plains (where cattle grazing continues) the same upward trend is not apparent, except in the enclosures... Likewise the bog and snowpatch areas examined show no substantial recovery and, in many places, active deterioration and erosion continue."

Costin, A.B. Report on inspection of Plants of the Bogong High Plains Area. May 2-6, 1977.

"...it can be concluded that protection from grazing and absence of fire results in (a) the development of luxuriant vegetation which provides adequate cover for the soil surface, and (b) promotes an improvement in soil structure and presumably in the hydrological characteristics of the mossbeds and their catchments."

Carr, S.G.M. (Maisie Fawcett) Report on Inspection of the Bogong High Plains, 1977

"As most of the free-flowing water accessible to cattle is found in mossbeds, cattle by necessity used mossbeds for drinking.' (p. 62) 'Overgrazing of rangeland by herbivores results in a loss of cover of preferred dietary species.'"

"In the absence of grazing the composition of the grassland community changes rapidly with several of the preferred species making spectacular increases in cover." (p. 125) van Rees, H. Behaviour and diet of Free-Ranging Cattle on the Bogong High Plains, Victoria, 1984

"...The contention that grazing is a primary (or even the primary) factor preventing the spread of shrubs on the High Plains is an inappropriate application of the ecological evidence."

"The continuation of grazing as a means of controlling the cover of shrubs cannot be recommended in the face of the evidence presented both in this thesis, and in the various publications of S.G.M. Carr, A.B. Costin and D.J. Wimbush."

Williams, R. J. Aspects of Shrub-Grass Dynamics on the Bogong High Plains (sub-alpine), PhD thesis, 1985

"Overgrazing of rangeland by herbivores results in a loss of cover of preferred dietary species. This enables less preferred plants to increase in cover through reduced competition by the preferred plants ..."

Van Rees, H. and Holmes, J.H.G. The Botanical Composition of the Diet of Free-Ranging Cattle on the Alpine Range in Australia. *Journal of Range Management* 39 (5), Sept. 1986.

"On the basis of present evidence, continued grazing by cattle as a means of inhibiting shrub expansion on the Bogong High Plains cannot be recommended."

"...the continued grazing of cattle within the Bogong National Park is not compatible with strict values of nature conservation."

Williams, R.J. and Ashton, D.H. Effects of Disturbance and Grazing by Cattle on the Dynamics of Heathland and Grassland Communities on the Bogong High Plains, Victoria. *Australian Journal of Botany* 1987, 35, pp. 413-31.

Abstract: "The ungrazed mossbed appears to be better serving its role filtering water that is used for the production of hydro-electricity."

McDougall, K.L. The Effect of Excluding Cattle from a Mossbed on the Bogong High Plains, Victoria. Sept. 1989.

"There is ample evidence indicating that the grazing of domestic livestock within the Australian high country is incompatible with nature conservation values."

"The continuation of grazing as a means of controlling the cover of shrubs on the Bogong High Plains, therefore, cannot be recommended as a management option, given the weight of the experimental evidence against the practice collected over four decades ..."

Williams, R.J. 'Cattle Grazing within Sub-alpine Heathland and Grassland Communities on the Bogong High Plains: Disturbances, Regeneration and the Shrub-Grass Balance.' *Proceedings of the Ecological Society of Australia*, 1990, 16, 2555-265.

"In the Pretty Valley ... improvement will occur in the absence of grazing."

"In the Rocky Valley ... there was no evidence that grazing has reduced shrub cover, and therefore potential fire risk, in open heathland."

"...grazing by cattle has substantial impacts on the composition and structure of sub-alpine vegetation."

"In grassland... continued grazing ... will not reduce the risk of fire in such communities."

Wahren, C.H.A. Papst, W.A., Williams, R.J. Long-term Vegetation Change in Relation to Cattle Grazing in Sub-alpine Grassland and Heathland on the Bogong High Plains: an analysis of vegetation records from 1945 to 1994.

"...the species composition of arthropods was significantly different between the grazed and ungrazed sites ... most probably related to differences in moisture content in the vegetation and top layer of soil and the species composition of the vegetation, which are influenced by cattle grazing."

Kimpson, K. The Effects of Cattle Grazing on the Diversity and Abundance of Terrestrial Arthropods on *Poa hiemata* Grassland on the Bogong High Plains. May 2001.

"The present study demonstrated that exclusion of cattle has positive benefits for aquatic ecosystems ... removal of grazing from sub-alpine catchments may release short-term benefits to some features of the aquatic ecosystem, with continued improvement up to 40 years... However, (recovery of) large-scale features such as channel morphology may take much longer."

Simpson, L. Assessment of the Effect of Cattle Exclusion on the Condition and Recovery of Sub-alpine Streams, April 2002.

Grazing national parks and fire severity

The following Opinion article was published (slightly edited) in Stock and Land on 12/10/06, in response to a request from Neil Barraclough for information on studies into the relationship between cattle grazing and fire in the Victorian Alps. As the National Party in NSW has been calling for the introduction of grazing into our national parks, it is appropriate to examine some of the science behind this debate. Provided by Phil Ingamells, Park Protection Project, Victorian National Parks Association.

Neil Barraclough asks (Stock & Land, 5/10/06) if there is any real science showing that cattle grazing didn't reduce the intensity of the 2003 fires in the alpine area. The answer is "yes".

It's a good question though, because it cuts to the core of what might be the most important issue in conservation management in Victoria over the next few decades: the need for greatly increased research and monitoring.

It seems obvious that because cattle eat grass, and grass burns, then if we have less grass we'll have less fire. But it's the job of scientists to test the obvious (otherwise we'd still think we're on a flat earth instead of spinning, improbably, on a free-floating sphere).

So shortly after the 2003 fire, a group of scientists set about testing the "grazing reduces blazing" theory.

The authors of the study are all scientists with solid reputations: Dick Williams (CSIRO Sustainable Ecosystems), Carl-Henrik Wahren (Centre for Applied Alpine Ecology at La Trobe University), Ross Bradstock (University of Wollongong) and Warren Mueller (CSIRO Mathematical and Information Sciences).

Measurements were taken in over 400 locations through 100 square kilometres of the Bogong High Plains, in both grazed and ungrazed areas. They surveyed fire occurrence and severity in alpine heathland (shrubby places) and in open heath (shrubs in grassland), and fire occurrence in grasslands. The severity of the heathland fires was measured by

recording the diameter of burnt twigs on shrubs. It wasn't possible to reliably measure fire intensity in grassland.

The results were interesting.

Heathlands, at 87% burnt, were by far the most flammable, open heaths less at 59%, while only 13% of the grassland areas were burnt. Importantly, there was no significant difference in these results between grazed and ungrazed areas.

So what about severity?

Again, there was no significant difference in grazed versus ungrazed areas of heathland, even in open heathland where cattle had grazed grasses in between and around the shrubs.

Essentially, in alpine areas fire is mainly spread by tall, flammable shrubs, most species of which cattle don't eat.

In some ways, there are no surprises here.

The 2003 fire blazed through almost every alpine grazing licence area in its path. The notable exception was Pretty Valley on the Bogong High Plains - the largest grassy plains area in the Victorian Alps. The only comparable place in Australia is in Kosciuszko National Park, where even larger areas of grassland remained unburnt, even though they had not been grazed for decades.

And in the Caledonia fire of 1998, in the southern section of the Alpine National Park, every bit of grazing licence area within the path of the fire went up in flames. That fire stopped at the ungrazed and unlogged Avon Wilderness - but mainly because it rained.

Fire behaves differently in different forest types, and areas that have been burnt recover differently in different locations, different altitudes and different soil types. That's why we should be doing more measuring and recording, both before and for many years after control burns, and natural burns.

In Justice Stretton's 1946 Royal Commission into forest grazing, he blamed the extent of shrub growth in the Alps on the cattlemen's habit of burning to promote grasses: "With each burning, the growth of scrub was stimulated so that it successfully contended with the grass for possession of the mountain sides."

It would be very useful to have had reliable and thorough measurements of the effects of the cattlemen's legendary burning, but the idea of carefully recording ecological processes is relatively new. By comparison, our understanding of the way the human body operates, for example, is vast.

With a climate crisis upon us, Victoria's natural areas are going to be placed under unprecedented stress, and our vulnerability to fire will increase. We will need all the knowledge we can muster.

The Victorian National Parks Association is asking for greatly boosted research and monitoring of our natural systems, right across the landscape. That way we, and future generations, might be able to secure safety for those who must live near natural areas.

Importantly, we might also help secure the long-term survival of Victoria's truly remarkable natural heritage.

The Federal Government came to the aid of Victoria's Alpine National Park and stopped the reintroduction of cattle grazing. Federal Environment Minister, Mr Tony Burke said 'it beggars belief that last summer the Victorian Government sought to reintroduce grazing to the Alpine National Park. This reintroduction of grazing ran against the grain in so many ways:

- The mountain cattlemen had previously been paid compensation when cattle grazing was discontinued;
- The environment of the Alpine National Park is already under serious distress from invasive species such as deer;
- The so-called scientific study which was used as an attempted justification by the Victorian Government was commenced without conducting any baseline survey of the sites before the cattle arrived; and
- The crass claim that this was the solution to future bushfires ignored the fact that none of the recommendations in the Royal Commission into the Victorian Bushfires called for such an action.'

FIRE AND WILDERNESS AREAS TERMS OF REFERENCE 2 CONT

Wildfire frequency in eastern Australian wilderness areas has generally increased since white settlement and is likely to continue to do so due to climate change and continuing population growth. Wilderness and other large bushland areas can be a buffer against ecosystem shifts due to global climate change. The wilderness areas protected by statute (which cover just two per cent of New South Wales) should be places where natural ecological processes can be protected from intensive fire management for the protection of human life and property.

Fire management for wilderness should limit fire frequency in ways that mimic the pre-European and pre-global warming environment. This management should seek to restore and maintain wilderness integrity (natural processes and biodiversity). Excessive burning can cause severe damage to rugged wilderness areas. When burnt, the ground cover that binds the soil is lost, leading to accelerated sheet erosion as the next rains strip away the thin soils and nutrients. Streams then fill with gravel and silt.

Too-frequent fires can also wipe out local wildlife populations, destroy the important and restricted old growth vegetation and lead to the replacement of existing vegetation communities with more fire-tolerant (and fire-prone) communities. Fire sensitive trees, such as *Eucalyptus oreades*, *E. deanei* or *E. dalrympleana*, or shrubby understorey species, such as Banksias and Allocasuarinas, can be lost from broad areas. Often it is these oldest plants that provide most of the nesting and roosting places for birds, such as the Eastern Bristle-bird and a number of threatened microbat species.

The assertion that Australia's forest lands were once all some sort of grassland or open woodland and should be burnt more often to mirror Aboriginal burning practices is incorrectⁱ

(see also **Attachment C**). Many types of forests and woodlands, particularly those containing long-lived shrubs, would not have been subject to frequent (less than ten-year) burnsⁱ:

- (i) The evidence is in the biology of key species in this vegetation. For some wilderness areas in NSW fire frequency is already well in excess of acceptable ecological limits (e.g. much of Wollemi). Many iconic wet old growth forests, such as the Coolangubra, greatly exceed the constructed ecological fire regime limits as currently conceived and the concept may not be appropriate for such forests. These forests are much more susceptible to fire than rainforests, and may need active protection from wildfire in a climate-changed world.

In these circumstances, effective fire-fighting in wilderness requires constant aerial and satellite surveillance (or alternatives) in bush fire danger periods to enable rapid detection and response. Such an approach is flexible and also eliminates the need for static fire observation towers in wilderness areas. To effectively tackle fires in remote areas while they are still small, more personnel need to be trained and supported as RAFT teams and as fire strategists. Although there has been much investment in recent years in road-based fire suppression capability, equivalent investment in remote area firefighting has been lacking.

Vigilant fire suppression in a climate-changed world would help to restore the natural variability of native vegetation age classes. It would also help to ensure rare old growth plant communities, including rainforests and tall eucalypt forests, and other fire sensitive species can be protected.

It is recognised, however, that even a well-resourced strategy of rapid aerial suppression backed up by RAFT is very unlikely to stop all intense wildfires. It is the ones that get away that can become very large wildfires and may prompt damaging control responses. Most wildfires have burnt into parks, and not the other way aroundⁱⁱ.

- (ii) For this reason broad-area planned burns of wilderness are a poor and ineffective way of controlling such external fires. In this context, additional fuel reduction burns should be undertaken where they are most effective, and that is close to the assets being protected (e.g. towns and rural districts)ⁱⁱⁱ.
- (iii) Further efforts to achieve an appropriate mosaic of patch burns on adjoining private land are necessary. Letting wilderness burn may be a valid fire management strategy, when controlling the fire by burning from containment lines a long distance from the wildfire would be likely on balance to cause more area to be burnt, or when such a response may be ecologically appropriate.

Fire management of wilderness needs to be based on solid science and detailed ecological understanding at the local landscape level. Much more investment in both research and professional fire strategy skills is needed to ensure that fire management is responsive to the ecological needs of specific wilderness areas and ecological communities. There should be more comprehensive and rigorous mapping and analysis of fire areas, fire intensity and

vegetation responses so that knowledge of how particular communities function under different fire regimes is developed over time.

Decisions on the application of damaging suppression practices, such as construction of containment lines in wilderness areas and large-scale backburning, should be addressed in an open transparent manner during risk management planning, not during a fire crisis. In a fire emergency, bulldozers should not be allowed to scar the scenery and initiate erosion by cutting poorly considered fire control lines on steep slopes. Hurriedly installed control lines often fail to contain a wildfire and cause more harm to the environment than either the wildfire or a well-designed and maintained fire trail. Use of constructed containment lines deep within a wilderness area to control wildfire can be dangerous to firefighters, as ground vehicle access is often slower than a hot wildfire and refuge areas and escape routes are limited. Except for fire trails in perimeter areas, trails should be closed and rehabilitated to restore wilderness values, particularly those installed without due consideration during a fire emergency.

Bush fire management encompasses all bush fire policies and operations, including fire mitigation, ecological burning and fire suppression. Fire management in and affecting wilderness and other large bushland areas should protect wilderness values in a climate-changing world through the following principles and strategies.

2006 COLONG FOUNDATION POLICY BUSHFIRE MANAGEMENT AND WILDERNESS

Principles

- i. Bush fire management (which by definition occurs in predominantly natural environments) is treated as one component of ecological management of bushland.
- ii. The prime bush fire management objectives in and for wilderness are the minimisation of all biophysical impacts and the maintenance and restoration of wilderness integrity (natural values, natural processes and existing biodiversity).
- iii. All fire management in wilderness is based upon principles of ecological sustainability and the best scientific knowledge.
- iv. Fire management in wilderness is evidence-based but flexible and adaptive (recognising that knowledge is evolving and an ecological risk management approach may be necessary if knowledge is incomplete).
- v. The principle performance criterion for fire management in wilderness is the maintenance of the majority of each vegetation community within its (scientifically determined) desirable limits of fire regime (frequency, intensity, timing and variability).
- vi. The integrity of old growth forests, rainforests and other fire sensitive vegetation are protected from an increased risk of wildfire arising from inappropriate fire regimes and climate change.

Strategies

Research

vii. Increased research and analysis of:

- vegetation and fire history;
- fire ecology specific to landscapes and plant and animal communities;
- the effects and efficacy of fire management activities.

viii. Rapid and supported assimilation of knowledge into on-ground fire management policies and practice.

Fire mitigation

ix. Undertaking planned fires in wilderness areas for ecological reasons only, and protecting off-wilderness assets on off-wilderness lands.

x. Allowing wildfires in wilderness to burn in appropriate circumstances, e.g. expected fire area, intensity and timing is within ecologically-determined limits, risk to human life and property is manageable, suppression may cause more impact than the fire, fire origin is natural (lightning).

xi. Increased effort by state and local government to prevent urban expansion within the bushland interface adjoining a wilderness area (as these are often high fire danger areas).

Fire suppression

xii. Greatly increased investment in the development of expert fire strategists and pre-planned low impact fire control strategies (aimed at maintaining natural processes and biodiversity in the long term) for large bushland areas.

xiii. More concerted and consistent efforts to prevent illegal ignitions and to investigate and prosecute offenders, e.g. the permanent establishment of well-resourced bush fire arson investigation teams.

xiv. Increased efforts in early wildfire detection, particularly during bush fire danger periods and in remote areas, to enable rapid detection, assessment and response.

xv. Rapid attack and close containment as the preferred suppression response to wildfires (when suppression is the objective – see clause xviii below), and ensuring that resources, capability and response times (for aerial suppression, Remote Area Fire Teams and other means) are adequate to support the highest possible success rate for such responses in remote bushland areas.

xvi. Ensuring that, if initial attack fails, ongoing ‘campaign’ fire suppression strategies affecting wilderness have as prime objectives the protection of natural values and the minimisation of environmental impacts, and that strategies are evidence-based on a detailed understanding of the ecology, history and behaviour of fire in the local landscape, as well as the successes and failures of past suppression efforts.

xvii. Ensuring that in large fire campaigns, knowledge, skills and resourcing are adequate to support 'surgical' and low-impact strategies (e.g. small tactical burns, use of natural containment lines and handtool lines, precision aerial burning and water-bombing) in preference to strategies that may be higher impact and less precise (e.g large-scale backburns from hard containment lines).

xviii. Ensuring that 'let burn' is an approved and supported option for wildfires in wilderness under appropriate circumstances (see clause x above).

Physical intrusions in wilderness

xix. Using existing constructed containment lines within a wilderness for back burning only when they have been identified for such use in a pre-incident operations plan that has been subjected to public comment and review, and these lines are properly constructed to minimise damage to wilderness values.

xx. Avoiding the installation of containment lines by bulldozer during a section 44 bush fire emergency or other wildfires without prior consideration and approval in an open and transparent process.

xxi. Immediate closure and/or restoration of any new trails constructed or upgraded during fire suppression operations.

xxii. Removal and replacement of fire observation towers located in wilderness areas with other effective detection methods that do not impact upon wilderness values, such as more aerial surveillance.

i Benson and Redpath, 1997, 'Nature of pre-European native vegetation in Australia, in Cunninghamia, Vol. 5(2).

ii Mr J P Henry, Deputy Fire Co-ordinator with the Bush Fire Council of NSW, 14-16 Sept, 1983, reported in the proceedings of the Ninth National Conference of the Australian Fire Protection Association.

iii Park Watch, March 1994, Vol 76

TERMS OF REFERENCE 3

LOGGING OF NATIONAL PARKS AND RESERVES

In 1991 the Commonwealth's Resource Assessment Commission Inquiry into Forestry and Timber summarised the overcutting of forests as follows: 'Australia's native forests have been overcut in most states causing an impending shortage in the supply of hardwood logs. The prolonged overcutting and not the inclusion of cutting areas in national parks and conservation reserves appears to be the main cause of the dwindling supply of hardwood logs. Overcutting coincides with and is caused by, the cutting out of most of the reserved old growth forest well before significant numbers of regrowth sawlogs reach harvestable size. The Inquiry cannot find any instance in recent decades where large areas of forest have been managed on a sustained yield basis.'

Native forests (as opposed to plantations) generally grow at a rate too slow for a sustainable and viable economic return (say 7% on investment), and so are usually logged on an

unsustainable basis for greater economic return. Any logging in national parks and reserves would be subjected to the same economic pressures. The logging of a national park, however, would be of lower intensity, and therefore have a lower economic return than current non-viable native forest logging operations. Otherwise the logging of a national park would be a raid and pillage operation with no intention of ensuring a sustainable yield of wood through time, let alone any concession to nature conservation objectives.

Time and money are better invested elsewhere than in logging national parks. The opportunity costs in terms of amenity, ecological integrity, wildlife and wilderness values degraded, as well as pest species invasion must also be added to the economic costs of logging.

So it cannot be argued that logging national parks at low intensities could be of an economic benefit, and if it is not economic, it could not be justified on the grounds of social welfare for loggers. To this argument, the Inquiry also should note that the very suggestion that River Red Gums or the North Coast hardwoods should be logged in any national park is repugnant to most Australians.

Logging impacts

The following points summarise logging impact:

1. Biodiversity

Australia's native forests are complex biological systems. They are rich in plant species, ranging from mosses and ferns, many species of herbs and shrubs to mixtures of tree species, including a uniquely diverse assemblage of eucalypts. Similarly, animals range from tiny soil organisms through a myriad of insect and other invertebrate species to amphibians, reptiles, birds and mammals, the whole forming a network of interdependent organisms.

The massive disturbance involved in logging compromises this complex interaction, removing its major elements (trees) and altering the very basis of soils and microclimates on which it depends.

Years after logging, trees may have regrown, but habitat has not.

2. Soil Erosion

The practice of logging produces a soil disturbance. When combined with post-logging fire the soil surface is exposed to a degree that makes large scale sheet and gully erosion inevitable. The removal of the forest canopy allows high intensity rain to bombard the exposed soil and cause run-off loaded with silt.

Snig tracks and roading all contribute to the disturbance. Streamlines in and below logged areas have shown increased turbidity and bed loads and estuarine lakes in catchments with integrated logging are filling with sediment at a rate far exceeding that where the forests have remained relatively undisturbed.

3. Soil fertility

Regrowth forest has consistently shown a decrease in vigour compared to the forest it replaces, implying a loss of fertility.

4. Water

Logging removes vegetative cover and litter. It lowers water infiltration into soil, thereby increasing surface run-off. This is further increased by heavy machinery compacting the soil. Baring the soil surface causes evaporative losses in the upper layer, which forms a dry crust resistant to wetting. Catchment studies have shown that immediately after logging, discharge increases.

5. Aesthetic, wilderness and recreational value

The aesthetic impact of integrated logging immediately following harvesting is devastating and for many years afterwards the monotony of even-aged regrowth and lack of diversity detract from the enjoyment of the forest by recreational users. The effect on wilderness values is self-evident.

UNSUSTAINABLE ACCESS ARGUMENTS

TERMS OF REFERENCE 3 CONT –

The unstated assumption of this term of reference is that the current use of the national park estate is unsustainable due to a lack of access for visitors to parks. This assumption is untrue. All parks can be reached by road or rail and there is no restriction on public access except for exceptional circumstances, such as the outbreak of bushfire and professional pest management. It is implicit that there is a special meaning attached to sustainable use by park user groups, the 4WD vehicle and equestrian lobbies which seek access to previously closed areas of parks.

The application of sustainable use implies more access for high impact recreation, just as support for balanced decision-making in town planning means that the proposed development gets approved.

There is no need for more access, for properly maintaining access for high impact visitor use puts a heavy burden on National Parks and Wildlife's financial and human resources.

Australia is older and flatter than other continents. There are very few places where terrain prevents 4WD vehicle users and horse riders from going off-road. Most areas that are now national park were previously penetrated by riders and drivers with minimum track development, usually associated with some form of use, such as cattle grazing or logging.

This freedom from physical constraints and past use means that most parks already have too many access tracks. The road network encompasses the whole state, and there are very few areas more than five kilometres from a road or track (Mosley, G. 1966 'Wilderness Areas' in *Architecture in Australia*, March 1966). The call for sustainable use brings into

sharp focus vehicle and horse riding access as key issues in managing the NPWS parks estate.

The benchmark 1979 State Pollution Control Commission inquiry into off-road vehicles found that 'the use of vehicles in areas of high wilderness value jeopardises wilderness qualities. The desire to explore and trail-blaze areas of virgin country can cause immeasurable damage to flora and fauna, cutting deep impressions as vehicles tyre-spin their way to gain traction over rough terrain. Narrow trails are widened, hillsides are rut-scarred, erosion is initiated, reserves become and remain scarred, front-end winches rope-scar and ruin vegetation, archaeological relics are damaged and the possibility of fires is increased from vehicles and the activities of users of vehicles.'

As the National Parks and Wildlife Group is aware, the claimed lack of access to protected natural areas is blamed by the advocates for high impact recreation use for various environmental ills. It is unavoidable that these advocates for multiple use and park development will exploit the Inquiry process to organise, seek to gain further influence and over-ride existing park management and conservation policies.

WHAT HAPPENS WHEN NATIONAL PARKS MUST PAY THEIR WAY TERMS OF REFERENCE 3 CONT –

Adopting a business-like approach by focusing on marketing, promoting and facilitating tourism and recreation will result in park management being influenced by those wanting to exploit national parks for profit, despite a stated concern for the environment by those groups. For every operator concerned for the environment there are another ten itching for more access to increase profits in the name of balanced use.

To quote Peter Cochrane "I unquestionably and undeniably have a commercial interest, and I have the interests of my employees at heart, I have the interests of my community at heart, and as the Mayor of Cooma I'm concerned for the economy of the entire area, and I certainly won't be dictated to by the National Parks and Wildlife Service or any other government group who thinks that they can in any way inhibit the growth of our society so far as recreation is concerned" (ABC transcript, 29/4/01).

Mr Cochrane is a trenchant opponent of wilderness and it was his highly orchestrated campaign that led to the dropping of the proposed karst zone being horse riding free in the current draft Kosciuszko plan of management. Karst is highly vulnerable to weed invasion and polluted waters and that is the fate awaiting these areas. Even the identified Tabletop wilderness will be subject to commercial horse riding.

According to Mr Peter Cochran, the outcome of the NSW Government 'independent' horse riding trial will be a track that traverses through 500 kilometres of Kosciuszko National Park's famed wilderness areas. His family runs a private commercial company 'Cochran Horse Treks' from Yaouk near Adaminaby and Khancoban on the west of the Kosciuszko National Park. The Cochran family business would benefit from any trial that throws open alpine wilderness to horse riding.

This so-called wilderness horse riding trial of over 500km would spread Orange Hawkweed, a very serious weed, throughout NSW's only alpine national park. Prevention is the most cost-effective form of weed control and so it is vital to keep uninfested areas free of hawkweed. Minute barbs on the seeds enable them to stick to hair, fur, riding equipment and be carried long distances.

There are many good tourist operators, but there are also legions of self-interested operators ready to derail good intentions and promote instead many nature-compromising schemes under the false flag of eco-tourism. Cable-cars, coastal resorts, wilderness lodges and a multitude of motorised intrusions are waiting for their chance to access the quiet realm of wilderness. Such development will trammel wilderness and put a barrier between it and the human soul (Brown, B 1993).

We know that the determination of carrying capacity is vital but inexact, with very little data available to decide the level of abuse an ecosystem can tolerate. In addition to uncertainty is the pressure for a so-called balance between wilderness and development. Supply and demand considerations will influence carrying capacity and the determination of recommended wilderness boundaries. So, for balance, read destruction of wilderness, like wilderness in Kosciuszko.

The restriction of visitor use is essential in fragile park areas but setting the right number involves park managers in a conflict of interest if the setting of the level of park use is not just an ecological and moral issue but becomes an economic one as well. When budgets are set for popular parks, managers are tempted to take risks and adverse results will cause irreversible harm.

As commercial tourism becomes a revenue earner for the National Parks and Wildlife Service, park managers and administrators will be tempted to overlook their guardianship role of minimal impact and appropriate use governed, as it should be, by the precautionary principle under the Act. And this focus on revenue becomes an increasing concern when a park administration is confronted with a contracting funding base. Park managers would be tempted to maintain staff levels and income at the expense of the environment through increased commercial revenue streams.

Marketing and development would become a management focus

To part visitors from their money, services have to be provided. Expansion of facilities to meet growing tourist numbers, while at the same time enhancing the conservation management of a reserve, are mutually exclusive policies.

To market parks, saleable and bookable facilities are necessary. The unpriced impacts of tax-payer funded facilities are sewage effluent, roads, carparks and powerlines. So in realising the value of park assets to raise funds for management there are always greater unpriced and unrecoverable ecological impacts.

Expensive wow-factor lookouts and elevated walkways would be developed with the objective of attracting more tourists. These structures are built on the belief that nature on its own is not good enough. To modify the national parks' most scenic points to improve 'marketability' is the wrong message and sets a poor example for society.

A large range of accommodation would be provided in national parks from bush camping to caravan sites, cabins and lodges to cater for all elements of the tourist market. These facilities may be provided by the NPWS as in the case of the Warrumbungles, or by long-term lease as in Kosciuszko and at Pretty Beach.

The NPWS will be required to develop retail product lines in partnership with private enterprise. Park managers will become captive of their commercial clients by developing special relationships and working partnerships based on the need for revenue.

Promoting mass tourism to attract large organised groups that inevitably travel by coach requires large parking areas, toilets and, in remote areas, necessitates overnight accommodation on-park. Any revenue for management gained by on-park accommodation would be at a high environmental cost and also at the expense of the local community who are denied the benefit of expanding their town's facilities.

Developing an on-park accommodation approach ignores the experience of United States park managers who are demolishing such facilities in the Grand Canyon, Sequoia and Yosemite.

User pays is a path toward development and is not for the average park visitor

Echo Point, Katoomba, has the greatest nature-based visitation in NSW by far, at over 2 million a year, but unfortunately returns nothing for management. Blue Mountains City Council subsidises visitor services provided, while bus operators make big profits.

Charging an entry fee is the only way that increasing access can improve park revenues and reduce subsidies but the fees would have to be greatly increased to recover the current taxpayer support. Such an increase would lead to dramatic increases in development, as park visitors would insist on seeing value for the fees paid.

Fees would also drive away those who could not afford to pay, including large family groups.

Park managers become tourist agents

Park managers will be recruited who have business and financial management skills, as these skills will be required to raise park revenues. There will be no additional money available and so the tasks of publicity, marketing and revenue raising will eat into staff resources allocated to conservation management.

In the context of revenue raising, NSW will have to compete with Queensland and Victoria for tourists. The NPWS will target the "organised holiday maker" with heavy marketing, including international visitors on package tours, escalating a NPWS demand-driven ideology. Sustainable use will become damaging overuse, wearing out park facilities leading to another cycle of infrastructure development and environmental degradation.

Field staff will become glorified ticket sellers, traffic wardens and road maintenance crews. Little or no time will be spent on conservation, like the north Queensland national parks that have no money for pest control but there are plenty of government funds for tourist publicity.

Broadening appeal to high impact groups degrades conservation management

The NPWS already has been improving its communication skills by promoting tour opportunities, like trail bike riding in the pristine Tanatwangalo Creek catchment of the South East Forests National Park. Such publicity does not ensure appropriate use, it just increases high impact use at the sites advertised.

The NPWS will seek to broaden its appeal by catering to a broader range of recreation pursuits. By becoming less risk averse, the NPWS would introduce plans of management that greatly expand the number of off-road vehicle tracks and horse trails. New tourist destinations will be developed to assist the private sector and other self-interest groups in partnerships through memoranda of understanding that circumvent and dictate park management processes.

In the case of the draft South East Forests Plan of Management over 400 kilometres of exclusive 4WD roads are planned. Even more 4WD roads are planned for the Southern Escarpment Parks in the adjoining region. In 1998 there were 2,136 kilometres of public access roads in the National Parks of NSW. There are now more public roads in the parks of the Southern third of NSW alone than there were across the whole state just seven years ago. These newly opened roads include over a thousand kilometres of 4WD roads in national parks and hundreds of kilometres of 4WD roads opened in NPWS identified wilderness.

To maintain newly opened fire roads for their original purpose, large sums of money must be spent in road maintenance. Each cycle of road maintenance results in more soil erosion, stream sedimentation, a wider road and more 4WD vehicle use, creating another vicious cycle of on-park degradation.

Zoning parks focuses on recreation opportunities

The NPWS will classify parklands into classes or zones. These zones determine where, how much and what type of development, access and recreation use is allowed in each part of every park.

The development zone will allow for substantial modifications to dominate the immediate landscape. Such modifications in no way enhance the conservation status of the area, satisfy the IUCN definition of a national park or provide for opportunities to restore disturbed lands. The provision of roofed accommodation in this class would involve, as it must, the need for electricity and garbage and sewage disposal.

Under economic imperatives the zoning inexorably ratchets park areas up the categories toward increasing development (just like zoning of private land responds to economic pressures). Park management strategies may state that habitat fragmentation is a main cause of species extinction but on-ground management will facilitate more fragmentation and development in parks. Commercial 4WD tours in identified wilderness and perhaps even that oxymoron the wilderness lodge will be permitted.

Endless Economic Growth

In Kosciuszko National Park commercialisation is continually being expanded to the detriment of the environment. Not satisfied with the concessions gained, the resort developers have succeeded in the removal of seven resort areas from the park to facilitate development under the guise of building safety. The 1980s NPWS policy of no new accommodation structures within protected areas was swept aside along with DEC as the economic and political power of resort growth snowballed.

And it is not just Kosciuszko. This policy would apply to situations where existing planning processes have flagged a need for accommodation.

Adventure tourism and wilderness

Another form of tourism anxious to get into wilderness is adventure tourism. In the Blue Mountains this activity has developed abseiling, canyoning and climbing sites. To reach these sites, many bush tracks have been created, removing vegetation and numerous illegal bolts and rings installed in the sandstone rock. The establishment of these sites is followed by overuse, erosion and damage to cliff faces, which in some cases can be seen over a distance of many kilometres. In the case of canyoning, stream banks are trampled and peaty rainforest soils eroded.

A Plan to Stop Commercialisation of National Parks

The vicious cycle of upgrading park facilities to meet demand must be avoided so that wilderness is not subjected to eco-tourism activities such as joy flights, horse riding and 4WD tours.

NSW parks receive over 23 million visits a year, compared with the very heavily promoted parks in the Northern Territory that receive only a little over a million visitors a year. The obvious conclusion is that park visitation can thrive without heavy promotion or diversion of scarce funding.

OTHER “SUSTAINABLE USE” CONCEPTS INAPPROPRIATE TO APPLY TO NATIONAL PARKS AND RESERVES

TERMS OF REFERENCE 3 CONT.

Bee Keeping

The impacts of European honey bees in the Australian environment include:

- Competition with native species for floral resources (There have been numerous studies from around the world showing that when honey bees are present, native bee visitation rates are reduced); and
- Changes in reproduction by native plants (Honey bees have distinctive behaviours that mean they may cause patterns of plant pollination that differ from the native pollinators. Studies of different plant species have shown different kinds of effects,

with honey bees diminishing pollination of some species and enhancing pollination of others (Gross & Mackay 1998)).

Excluding bee keeping would reduce unnatural ecological changes brought about by exotic bees.

Bee keeping is not an appropriate use of national parks or nature reserves. There is adequate scope for bee farming in the rest of the state outside national parks and nature reserves. Bee keeping permits should be phased out within the NPWS estate as European honey bees displace native bees. These insects do not pollinate all species of native wild flowers but displace the bees that do. The flora that is not pollinated will decline, causing a cascade of ecological change in protected natural areas.

Hereditary access as a right

Exclusive access to a bridle trail, historic huts or other non-indigenous historic sites is inappropriate, especially within wilderness areas. Every part of Australia has historical significance to various community groups. A presumption of hereditary (horse riding or vehicle) access to places of interest or importance could result in such arrangements to almost every part of the NPWS estate. A broad policy of hereditary access is strongly opposed by the Colong Foundation as it would cancel out wilderness management and compromise park management arrangements in many other environmentally sensitive areas, such as nature reserves. Arrangements for the family access and indigenous access are made by the National Parks and Wildlife Group but these should not be generalised to a broad policy.

Acceptance of 'traditional' access by the NPWS would lead to demands for exploitation of parks from past traditional uses with which access to the area was formerly associated. For example, Reynella Riders were formerly licensed to undertake cattle drives through Kosciuszko National Park by the NPWS. This is the same company which this year was awarded an environmental prize for eco-tourism by Environment Minister, Robyn Parker and granted free park access. The pressures for grazing in national parks will, if acceded to by the NSW Government, occupy huge amounts of time and effort by the Service. The Service, like the general community, is aware of the consequences of stock grazing.

If approved, park managers would be advocating the imposition of restrictions on traditional access to protect the environment, after the damage is done.

Cattle grazing in the high country and 'traditional' horse riding are uses that usually take place with dogs and support vehicles, multiplying the damaging effects of the grazing activity.

Inappropriate application of 'equity of access' principle to commercial interests

Recreation clubs provide the community with significant park access and services for free.

Commercial users are financially motivated to exclude competitors and rivals. The tourist industry demand for equitable access includes seeking the application of equivalent standards to voluntary recreation clubs that provide similar services to the commercial operators (e.g. leadership standards). Professional accountability and accreditation standards for commercial operations should not be transferred to voluntary, non-profit clubs and conservation organisations.

Those community groups that offer park access services to society for free (e.g. bushwalking clubs, 4WD clubs, etc) should not be expected to achieve the same leadership standards as those providing services for payment. Such a move could significantly reduce access to the parks, including regular park visitors who may not be able afford commercial tour group prices.

Visitor-focused access management and site hardening for commercial tourism

Commercial use of lookouts and other areas of high attraction, such as board walks through rainforests, should be limited by the setting (as determined by potential impact on the quiet enjoyment of the park by other users, land capability and recreational setting assessments) and not by the aspirations of tour operators. This is sometimes termed 'nature-focused park management'.

Site-hardening to accommodate commercial use is not appropriate within parks (e.g. by providing more car parking spaces, upgraded facilities or a proliferation of facilities). The pattern of economically driven expanded use quickly becomes ecologically unsustainable. The amenity of the place becomes ruined by infrastructure, such as experienced on the tourist-overloaded South Rim of the Grand Canyon in the United States. This is sometimes termed 'visitor-focused park management'.

Park management must not be compromised so that wilderness is trimmed especially to accommodate commercial tourist operations that damage the natural environment or visitor amenity. Unfortunately commercial tourist routes are rapidly being label 'sacrosanct', not be altered or varied (e.g. the Bicentennial National Trail), even to protect endangered species.

Commercial tourism accommodation

Of course commercial tourism activities are popular in parks, where land is cheap. The state is exceptionally well endowed with a complete range of commercial visitor facilities outside the park system, ranging from 5 star hotels to camping grounds.

The proposed hut development in the heart of Warrumbungle National Park was rejected. This proposal was rejected by public opinion, the NPWS and the NPWS Advisory Council, and finally by the Minister for the Environment. The cabins would have simply realised the park's natural assets and provided park land, access and other services at a subsidised price on public land. Park development gives unreasonable price and location advantages over resorts in the town and countryside. The proposal would have set a precedent that encouraged more inappropriate development of this type.

The place for commercial activities is outside parks. Commercial visitation inside parks should be restricted to public roads approved for commercial use in a plan of management. Parks should provide opportunities for quiet recreation in a natural environment unencumbered by commercial activities.

The Emirates - a case study

The Emirates 'eco-resort' in the remote Wolgan Valley is a good example of why national parks are unsuitable for resort development.

In 2005 the company developed an eco-resort proposal for a 1,000 hectare private property which had been affected by cattle grazing in the past. There were plenty of resort development opportunities on that private property, but ultimately none of these were selected. Part of the Wollemi National Park in the World Heritage Area was proposed for the resort instead. The resort was developed on the park and that part is still planned to be one-day revoked from the national park in a yet-to-be-implemented land swap arrangement.

Managing Director, Christopher Brown, stated that the resort proposal was developed in close consultation with 'the tourism industry, park managers and conservation groups'. The implied justification for this private enterprise partnership is the argument that the industry can lend a helping hand to the public sector to advance nature conservation? No problem with that when degraded grazing land is to be restored. Where the resort development occurs in the national park, however, the objectives on advancing nature conservation and those of resort development come into direct conflict.

It was perhaps a convenient argument, but the Wollemi National Park still does not benefit in any significant way from the resort lease. Only adequate taxpayer funding of park management and effective protection of the park from exploitation can do that.

Conservative journalist Andrew Bolt ridiculed conservation group efforts to protect national parks from development. A close media associate of Gina Rinehart, he attacked concern over the Emirates' Resort stating this 'is the one at Wolgan Valley that green groups fought and green tape nearly strangled. A hotel in a national park? Sacrilege!' (*Adelaide Now*, 13 June, 2012).

The Emirates' Wolgan Valley Resort was the very first 'concept plan' proposal under the notorious Part 3A amendment to the *Environmental Planning and Assessment Act, 1979*. Part 3A is law that gave too much power to the Planning Minister and which slashed green tape but didn't help the Emirates' project.

The initial Part 3A 'concept plan' in fact placed the resort on freehold land and went on public exhibition just before Christmas 2005. Then, just before Christmas 2006, a variation of the 'concept plan' went on exhibition that relocated the proposed resort onto the World Heritage listed Wollemi National Park.

The amended 'plan' did not indicate the boundary of the national park let alone explain why the 1,000 hectares of freehold land available for the proposed resort were so unsuitable that it had to go onto adjoining national park land. The NSW Director-General of Planning required that the modified plan to specify any 'Incorporation of National Parks and Wildlife

Service's land to accommodate the relocation of the resort facilities and buildings'. This direction was ignored, but being a Part 3A variation of approval, it too was approved, with no possibility of a legal challenge to that decision.

Any decent environmental assessment would have located the original resort design well away from the 1820s homestead that Mr Ian Kiernan of Clean Up Australia was commissioned by Emirates to renovate. It would also have avoided the World Heritage Area as the designers would have known where park boundaries lay. Well of course the relocation of this large resort onto the World Heritage Area triggered Federal Environmental laws and the blundered environmental assessment was redone for a third time.

Green tape free 'concept plans', that the Tourism and Transport Forum so desires, caused the muddle, the time wasting, the expense and the precedent of a large resort in the Greater Blue Mountains World Heritage Area.

No rational person would suggest, looking back on two years of bungled decision-making, that this resort should have been located in the national park. So many opportunities existed on the 1,000 hectares of private property for the resort, yet none were taken up. The slashing of green tape inverted common sense, preserving degraded farmland at the expense of a World Heritage National Park!

WILDERNESS MISCONCEPTIONS TERMS OF REFERENCE 3 CONT.

by Dr Geoff Mosley

Supported as it is by the vast majority of Australians, wilderness nevertheless has some influential enemies. This is not surprising when one considers that wilderness protection is so diametrically opposite to mainstream obsessions with economic growth.

Some influential people see wilderness as a barrier to their ambitions and it suits them to try to muddy the waters. In this climate honest misunderstandings over meanings also arise.

The following is a preliminary list in alphabetical order of some of the most common myths, and distortions. The list is by no means conclusive and there is considerable overlap between the entries. My comments are in italics.

ANTHROPOCENTRIC. Wilderness is anthropocentric, being concerned first and foremost with human needs. *Although we still see nature as something separate from ourselves, a decision to deny ourselves access to all the available resources in large natural areas and to regard those places as places where natural forces will be dominant is a move in the opposite direction and could be more accurately better described as 'ecocentric'.*

BIODIVERSITY. Being selected for their value for wilderness-type recreation, wilderness areas do not make much contribution to the protection of biodiversity, and in any case, without interventionist management, any biodiversity values present will be reduced. *Wilderness areas are the last large natural areas and are chosen because of their potential for the protection of viable natural conditions. They have both biodiversity and recreational*

values. Their size provides the optimum geographic circumstances for the protection of biodiversity, geodiversity and natural processes. Additional reserves are necessary for the protection of the full range of environmental variety.

CONCEPT. Wilderness is a concept not a place. *Wilderness is no more a concept and no less a place than any other term used by humans to describe spatial differentiation. As with words like 'mountain', 'forest', national park', 'rural', 'town', the answer lies in community agreement on definition.*

ELITIST. Wilderness is elitist because it is accessible only to those fit enough to walk through the natural areas and cope with their natural hazards. *Wilderness areas are available to all those who are willing to tackle them on their own terms. They add to the range of experiences possible and hence to human freedom. They teach self-reliance and improved understanding of the environment. Walking is the oldest mode of human travel and is that which is available to the greatest number of citizens. In its inclusiveness wilderness is the opposite to elitist.*

HUMAN EXCLUSION ZONE. Wilderness is an area from which humans are excluded. *Humans are prevented from exploiting resources in wilderness and from the use of modern technology for travel (e.g. off road vehicles) but one of the main reasons for having wilderness areas is for people to be able to enjoy the special experiences they offer. Therefore they are people zones. Wilderness areas are closed to permanent settlement.*

LOCKED UP. Wilderness areas are 'locked up' and are therefore against the public interest. *This claim is similar to that of 'human exclusion zone'. Wilderness areas are locked up against materials extraction, and mechanised and other forms of damaging access but not to their highest public uses – nature conservation, scientific observation and enjoyment of the wilderness experience. Hence the phrase is inappropriate.*

NOT AUSTRALIAN. The idea of wilderness conservation is an American import. *The idea was developed in NSW by Myles Dunphy between 1914 and 1932 in response to what was seen as a local need. The National Parks and Primitive Areas Council (NPPAC – formed 1932/33) was the first voluntary group in the world to have wilderness conservation as a major objective. Dunphy and the NPPAC were inspired and encouraged by parallel developments in the USA.*

TERRA NULLIUS. Setting aside areas for protection as wilderness is insensitive to the culture, rights, interests and needs of Aborigines and is an extension of terra nullius, implying that the lands were uninhabited. *Terra nullius involved the notion that since Aborigines did not own land and occupy it in the European way it could be appropriated by colonists. Recent recognition of the existence of native title on tenures other than freehold has created a potential competition for land between Aborigines and protected areas. The wilderness movement knows that it has several things in common with the traditional Aboriginal relationship with the land including: a belief in sharing; ownership of land by the community; a sense of kinship with the environment; love of quiet contemplation of one's surroundings and an awareness of the spiritual quality of place. The conflict arises where Aborigines want to use the land for modern technological processes, have motor vehicle access or manage the land in a way which interferes with natural processes.*

NOT PRISTINE. Wilderness areas are not pristine because they have been affected by many thousands of years of occupation by Aborigines and, in some cases by Europeans for grazing, timber extraction, mining, etc. *Wilderness conservation has never claimed that the environment in wilderness areas is unaffected by such occupations – although they believe that the impact varied from area to area. What is said is that the areas selected are those that have the capacity over time and under the influence of natural forces to return to a natural condition.*

Note: Wilderness conservation challenges the conceit of humans which drives their superior exploitative attitude to the environment. The reversal of the older meaning of the word from something second rate – wasteland – to something of intrinsic worth – a good-land – is a significant development in human affairs. It lays down a challenge to the prevailing economic rationalist outlook and could become a standard bearer for a reorientation of our basic environmental value system.

PRINCIPLES OF NATURE-FOCUSED PARK MANAGEMENT **TERMS OF REFERENCE 3 CONT.**

A visitor management strategy that provides adequate opportunities for quiet enjoyment and ensures the preservation of aesthetic and natural values would have five main principles:

- All activities should be governed by the plan of management;
- No visitor accommodation on-park;
- The majority of each park should be subject to wilderness-style management with suitable areas on the edges set aside for motor vehicles;
- Vehicle access should be on formed 2WD roads approved for use by the plan of management;
- Low key facilities such as picnic tables and basic camping grounds should be located near park boundaries.

Limited high quality road access on the edges of parks and good quality low-key facilities are the key to appropriate visitor management. Almost all heavily used park areas are within an hours walking distance of a vehicle access point. There are some exceptions to the above rule, such as the very attractive Main Range in Kosciuszko National Park and most scenic parts of the Budawang National Park, but they are few.

These five principles can be elaborated on to construct ecologically sustainable park management policy:

1. Equity for future generations and wildlife

Since the primary purpose of national parks and reserves is the preservation of the natural environment, equity considerations should be for nature itself and not the access demands of high-impact recreationists, including recreational hunters. In the small part of the State set aside for conservation, high-impact recreation users' case for equity of access should be

subordinate to the interests of those without a voice — future generations, wildlife and the wild places themselves.

The above policy setting is prescribed by the management principles of the *National Parks and Wildlife Act, 1974*, which are themselves enshrined into the objects of that Act (see section 2A(1)(d)). Section 30E of that Act states that 'A national park is to be managed in accordance with the following principles: ... (e) provision for sustainable visitor use and enjoyment that is *compatible with* the conservation of the national park's natural and cultural values.'

2. Manage core areas to be free from vehicles

Core areas of NSW parks should be kept free of public access for vehicles and other high-impact users. Management and fire trails should be closed and kept closed to the public.

This provision is in keeping with the precautionary principle, one of the three principles of ecologically sustainable development through which the objects of the *National Parks and Wildlife Act, 1974* are to be achieved.

Motorised transport is an anathema to wilderness; as Myles Dunphy said, "The only way to conserve valuable wilderness is to place an embargo on roads in relation to it" (1934). In 1935, Myles Dunphy told the NSW Minister for Mines and Forests, Roy Vincent, that the road is the greatest avenue of damage to forests and the destruction of wildlife and habitat, fire, illicit hunting, dust of traffic, noise, acts of irresponsible persons, picnic refuse and travellers, filth, water pollution, plant theft, broken glass, rubbish-dumping and dilapidation caused by sheer numbers.

In 1938 Marie Byles, a notable bushwalking conservationist of the time, warned of the mistakes made by America. The initial mistake was to regard it sufficient to dedicate lands as parks. She argued that there must also be wilderness that will stay wilderness for all time. Even in the 1930s, expansion of tourist roads and mass marketing had caused motor tourists to flock to parks, damaging wilderness and environmental values.

Today, the potential for environmental damage from vehicles is exponentially greater. Off-road vehicles, first produced during the war, are now nearing plague numbers. A network of fire trails and tracks for past logging, grazing and mining activities traverse nearly all wilderness areas, leading vehicle-based lobby groups to demand access for all. They ignore the soil erosion and stream bank degradation caused by their activities.

Fire trails used for vehicle recreation divert precious public funds into restoring and upgrading tracks in remote areas. This takes funds away from pressing pest control and nature conservation objectives.

Vehicle access tracks interfere with the movement of small mammals that do not cross bare areas. A road, which divides the critical habitat of a population of small mammals, may create two or more doomed populations that may exist for a time before dying out. Loss of adequate living space can also cause genetic effects in wildlife populations, such as inbreeding and a reduced ability to adapt to ecological changes. Roads assist invasion and

foraging by foxes and dogs, enabling them to expand their hunting range to prey on formerly isolated populations of threatened species, such as the smaller wallabies.

Rare species existing at low densities or needing large areas of habitat are the first to suffer from this kind of habitat fragmentation. These animals rely on wilderness for their long-term survival.

Road verges also encourage distribution of weeds brought in by motor vehicles. An example is the noxious weed scotch broom, which spread out from fire trails used by recreational vehicles at Barrington Tops.

3. No horse riding in national parks

The use of national parks for horse riding is opposed by the conservation movement due to the damage caused to natural values (see detailed submission, **Attachment D**).

The reversal of the precautionary principle in relation to horse riding by the Office of Environment and Heritage is inappropriate.

The domestic horse is an excellent vector through which to disperse parasites and weeds into remote wilderness. Allowing horse riding in wilderness must draw into question *P. cinnamomi* management or any pathogen quarantine.

Park visitors would be disinclined to comply with a visitors code, including any quarantine measures, while the National Parks and Wildlife Group argues that its scientific management finds piles of horse manure an acceptable impact for wilderness areas. A 1997 NPWS report found that horse riding caused severe impacts in nine parks and reserves. Since that time the level of use related damage has increased.

4. Regional studies before regional plans

Collecting data on the relative environmental impacts of user groups is a prerequisite for regional access management. Regional tourism planning should identify 4WD and horse riding opportunities outside national parks and reserves.

National parks and reserves offer opportunities for nature-focused recreation. These appropriate visitor use opportunities are located at the low-impact end of what is called the 'recreation opportunity spectrum' (Clark and Stakely, 1979). These forms of recreation are *compatible with* the preservation of the heritage and natural values of national parks and reserves (see policy 1 above).

High-impact recreation opportunities for 4WD vehicles and horse riding should be provided off-park on public and private lands where they are more compatible with natural resource extraction and sustainable use. The vast area outside parks and reserves, over 90 per cent of NSW, is available to all.

Visitor use of parks is based around key sites or features, generally with some provision of visitor facilities (Macris, 2008a). These nodes (or honey-pot sites) are often subject to visitor-based management. Allocating park visitor management resources to these sites and access to them, rather than facilitating further dispersion of visitor impact across parks and

reserves, ensures the most economically efficient allocation of management money and human resources.

All parks and reserves are environmentally sensitive areas. Regional environmental studies for vehicle and horse riding opportunities in national parks and reserves should be restricted to approved and maintained, two-wheel drive suitable public roads linked to visitor nodes.

In addition to being efficient use of investment in visitor facility dollars, it ensures improved amenity at the honey-pot sites, reduced damage from dispersed vehicle-based visitor activity and enhanced protection of wilderness values.

The Plan of Management (POM) provides, as it should, that only certain roads identified in the POM are available for public vehicular use; there is no legal possibility of providing other such roads in the zone without amending the POM.

There is a considerable danger in recreational zoning of large areas for higher-impact activities and/or development. For example, if an area which includes a public or park road is designated a 4WD vehicle zone, this may mean to some that the whole area could later be made available for an expansion of motorised recreation. At the least, expectations could be created that are not what the zoning intended (Catford, 2003).

Similarly, a large tourism zone would create the expectation that resorts could be constructed anywhere in such a zone. For this reason the current practice of park management plans identifying the location of particular facilities and roads on a map should be continued. After all, if the public is to use these facilities, then there should be a map of where these facilities are located, or intended to be located, so that the public may access them.

5. Public access should be subject to park and reserve plans of management

All public access in national parks and reserves should be subject to due process. Consideration of proposals for access of existing roads and tracks should not be delegated outside of the plan of management process. Only roads specified on a map by a plan of management should be available for public use. This official map will provide certainty and guidance not only to park visitors and the tourist industry but also to publishers and advertisers.

Proposed new roads and major track work should be subjected to a development application, public exhibition and review process, as well as plan of management review processes. This is no less a prescription than that applied to private land where only development applications that are compatible with the local environmental plan can be determined by decision-makers.

Concessions for exclusive private visitor use and new vehicle access routes should not be provided in parks. Wilderness proposals were subjected to four rounds of public consultation, the Bicentennial National Trail was never subjected to environmental impact assessment, public consultation or a development application. As a result many wilderness areas were cut in two by the Trail, which now takes a presumptive management priority over these wilderness areas.

6. Regional tourism planning should protect core park areas and encourage off-park nature based tourism

The most appropriate strategy to limit the spoiling effects of overcrowding is to protect core park areas from vehicles and incursion by other high-impact users, while at the same time encouraging use of the newly established regional parks where adequate picnic grounds should be provided, subject to environmental impact assessment, public comment and review. Outside the NPWS estate, use of other public (Crown) lands where high-impact recreation can be more appropriately accommodated should be facilitated, as recommended by the 1979 SPCC off-road vehicle inquiry.

7. Develop visitor facilities in adjoining towns

The provision of appropriately located accommodation in adjoining rural settlements should be enthusiastically embraced by the National Parks and Wildlife Group and networked with existing park facilities at visitor nodes. 'The Gateway Concept' has seen successfully regulated visitor use in the United States (except where it has become a 'bridge-head' for ingress of commercial interests into the parks).

The provision of facilities off-park benefits rural communities and boosts the economic vitality of struggling villages and towns. The facilities can tap into existing utilities, instead of constructing these in park areas. Sewage treatment and waste disposal are then efficiently addressed and do not encourage pest species within protected areas.

8. Only basic visitor facilities should be provided in parks

Facilities within parks should be restricted to an essential minimum needed to protect natural values, and car parks, toilets and basic camping facilities appropriately located toward the edges of the park. An appropriately located visitors centre could be located on the edge of one park in each region of NSW but caravan parks, commercial or private huts and resorts should not be established as these drain resources away from conservation management.

9. Commercial access should be limited to approved public roads

The place for commercial activities that require major visitor facilities or that are not nature-focused is outside parks. Commercial visitation should be restricted to nature-focused activities and commercial vehicles should be restricted to public roads approved for commercial use by a plan of management. Commercial activities should not be granted exclusive access to any road or part of a park.

10. Parks should not be subject to site-hardening to provide for commercial use

Commercial access must not be determined by the aspirations of tour operators. Commercial use of vantage points and other places of interest accessed by roads should be limited by the setting (as determined by the potential impact on the quiet enjoyment of other park users, land capability and recreational setting assessments). Site-hardened areas should not be expanded to accommodate commercial or increased public use within parks (e.g. no enlarged car parks).

11. Information and Education

Park information should focus on natural and cultural heritage values, not the promotion of parks as playgrounds for visitor groups. This provision stems from the objects of the *National Parks and Wildlife Act, 1974*.

12. Formed walking tracks inappropriate in core park areas

High quality walking track access should be based on existing facilities, and must by necessity and economic constraints be short and near places of interest (e.g. to viewing platforms and board walks). This will ensure that the public gets the most use of park facilities.

These routes should be located on the edges of parks and should cater for inexperienced park visitors.

13. Access for Special Groups

There is adequate scope for all sections of the community to enjoy parks by reason of the provision of thousands of kilometres of public roads and the formed walking tracks radiating from them within the parks (commercial tourism operations and the disabled can and do use and enjoy these roads and tracks).

14. Phase Out Alien Use Access Agreements

The NPWS should continue to vigorously resist proposals by government agencies and corporations for the construction of towers, powerlines, roads and other alien infrastructure in parks. Alien use agreements should aim to phase out these uses. The term alien use is appropriate for all activities that are not nature-focused.

15. Maintenance of natural quiet

Low flying aircraft must be excluded from parks, including helicopters. Tourist joy flights ruin the enjoyment of those on the ground (e.g. the joy flights at Uluru National Park). All wilderness areas should be subject to a 10,000 feet minimum flying height agreement between the NPWS and Air Services Australia. No aircraft should be allowed to land in parks, except for emergency, rescue and essential park management purposes.

16. No hunting in parks

Use of firearms in parks should be rejected. Weapons cause serious conflicts with other users' perceptions of parks as wildlife sanctuaries, put at risk park visitors and managers, and interfere with effective pest management.

17. No privileged off-road equestrian and vehicle access

The NPWS policy of access for all by well-formed 2WD public roads approved by a park plan of management should be retained.

Access for vehicles (including horses) using management trails should be rejected by this Inquiry. This practice is not consistent with minimising the environmental impacts of visitor usage.

18. Apply traffic calming to park roads in park areas

The objective of park access management should be to get people out of vehicles to appreciate park environments. To reduce the conflict between park users, the principles of traffic calming should be applied to public park roads and vehicle speeds limited to 60 km/h or even 40 km/h to protect wildlife and recreational park visitors (e.g. Lane Cove National Park visitor areas).

19. No 'traditional' access by horse or vehicle

Acceptance of a 'traditional' access philosophy for horse or motor vehicle will lend support to demands for other traditional uses of parks, such as bee keeping, hunting, logging, grazing, mining, fishing and brumby running.

Such forms of exclusive use remain incompatible with current tenures as national parks or nature reserves. Farmers don't graze sheep in Pitt Street simply because it was once a traditional use of the area.

The claim of traditional use is a flimsy argument. It seeks to elevate the priority traditional access above its detrimental environmental impacts on park heritage values and other park visitors on the grounds that it used to happen when the land was managed for primary production.

20. Phase out inholder access

The NPWS should develop a program of establishing either formal access agreements with landowners similar to those that have been proposed for some alien uses or develop an amended form of Controlled Access System agreement with affected landowners. These agreements should be phased out as inholdings are voluntarily acquired.

21. Bicycling should be confined to public roads

The Colong Foundation for Wilderness supports the use of bikes on roads, including fire trails, that are approved for such purpose through a reserve plan of management. Cyclists should not ride on walking tracks due to impacts on track quality and safety considerations (c.f. footpaths). Bicycling in wilderness areas is inappropriate.

Tracks built exclusively for mountain bike sport are no more appropriate than ovals and golf courses in national parks. These facilities are for a sport (mountain biking), not the appreciation of heritage values. The construction of new exclusive mountain bike tracks would be an inappropriate diversion of limited resources to a new inappropriate sport that damages park values. Mountain bike use will always be a minority park use compared to the walking public. Bike riders have vast amounts of legal access in the form of thousands of kilometres of roads in parks, including management roads. For these reasons, the diversion of funds from nature conservation is unjustified.

Bike events that require major track works and visitor facilities to cater for very large numbers would be beyond the scope of any activities conceivably compatible with the nature conservation purpose of national parks.

22. No bee keeping

No bee keeping should be allowed in parks as these exotic species are ecological pests that accelerate 'unnatural' ecological change (see previous section for the environmental impacts of keeping honey bees in parks and reserves).

23. Wild rivers should be managed by NPWS:

A memorandum of understanding between the Office of Water and the NPWS and legislation should transfer responsibility for waterways in parks to the NPWS. Wild rivers outside existing parks also should be protected by legislation.

24. NPWS should regulate fisheries in parks:

Legislation should be enacted to transfer the responsibility for fisheries management in parks to the NPWS. Fish are wildlife or pest species, and on-park management should be by the National Parks and Wildlife Group charged with the responsibility of protecting wildlife, not by the authority responsible for managing the sustained yield of fisheries.

IRREPLACEABLE BENEFITS OF WILDERNESS

Australia's remaining wilderness areas are shrinking, biological 'islands' in an expanding sea of exploited land. The number of species that can survive on these 'islands' decreases as the 'islands' become more fragmented.

But there is hope, if only we can get governments, citizens and opinion leaders to understand the undeniable and irreplaceable benefits of wilderness.

Wilderness holds a genetic store of unimaginable wealth. Only in wilderness could the Wollemi Pine (*Wollemia nobilis*) survive unknown for 200 years of European occupation. In the relative stability of the deepest canyons of our largest forest wilderness, these 30-metre trees survived 100 million years of climate change. Their discovery has brought home to the world that Australia's wilderness contains biological treasures of great importance to science and society. Opportunities yet to be grasped in our wild places include examination of the medicinal properties of native plants known to Aborigines, such as certain grevilleas, and opportunities for improving pasture contained in the genetic resources of our rapidly diminishing native grasslands.

The significant variation in altitude, soil and terrain in the wilderness areas on Australia's eastern seaboard may provide the essential opportunities for wildlife to relocate in response to global warming.

The rare and isolated plant populations and ecosystems of today are the survivors of previous warmer and wetter climatic conditions. They may be essential to the ecosystems of tomorrow.

Wilderness provides opportunities to study responses to climate change in environments where other types of disturbance is minimal. Such studies may enable scientists to recommend appropriate measures for wildlife survival in fragmented habitats where extinctions are likely, and how to adapt fire management and farming practices to a warmer world.

Our ability to retain wilderness is a key indicator of whether the Australian environment as we know it is environmentally sustainable. For example, to cease building wilderness-flooding dams Australians need to stop wasting fresh water. It is more important than ever to stop clearing native vegetation, reverse soil erosion, tree dieback, river salination and salt scalding of agricultural lands, to cease pesticide contamination of food crops and contain urban pollution and sprawl.

Wilderness, the ultimate self-sustaining natural system, provides the necessary inspiration for an ecologically sustainable society. Its undisturbed catchments also supply a higher, more constant water yield and quality than disturbed catchments. It also reinforces the viability of fresh water native fish populations and other aquatic life.

Wilderness has provided inspiration to philosophers such as Henry Thoreau and Aldo Leopold, and the Australian poet Judith Wright. The best opportunities for solitude and peace are found in wilderness. The wilderness has an enviable track record as a source of spiritual renewal and in providing an insight into humanity's place in nature.

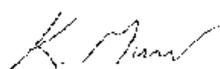
Wilderness offers protection to the 40,000-plus years of Aboriginal history by helping to keep cultural heritage sites isolated and secret. Wilderness has enriched all our lives with art.

Who can deny the artistic impact of Peter Dombrovskis' image of Rock Island Bend — initially a campaigning tool to help stop the Franklin Dam and more recently seen as marking a turning point in Australia's environmental and political history.

Whether we see wilderness conservation as pragmatic resource management, whether we treat wilderness as a scientific store-house of natural diversity or an object of beauty — and therefore a source of human creativity and spiritual peace — the future of the Australian wilderness is inextricably bound up with the quality of human life on this planet.

Thank you for the opportunity to make this submission.

Yours faithfully,



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