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Nature Conservation Saves for Tomorrow

BMCS Submission to the Senate Enquiry into Australia's national parks, conservation reserves and marine protected areas

1. INTRODUCTION

The Society has approximately 860 members. These come predominantly from the Blue Mountains, but a significant number live in the Sydney region and a few are from elsewhere in Australia and overseas.

The Society belongs to the Nature Conservation Council and Environmental Liaison Office, and holds membership of the National Parks Association and Colong Foundation for Wilderness.

The terms of reference of the Senate enquiry are to evaluate whether the funding and resources available are sufficient to meet the objectives of the protected areas. To do this, the Committee will focus on:

- (a) the values and objectives of the protected areas;
- (b) whether governments provide sufficient resources for the objectives and their management;
- (c) threats to the objectives and management;
- (d) governments' long-term responsibilities to create and manage protected areas; and
- (e) the record of governments in this regard.

The Society's mission is to help conserve the natural environment of the Blue Mountains. In consequence, its submission will focus on parks of the Greater Blue Mountains and concurrently on the Blue Mountains World Heritage Area.

2. RESOURCE DEFICIENCY

The fact that this enquiry is being undertaken is testimony to the values and objectives in (a) being inadequately resourced as per the proposition in (b). This applies to all types of protected area, and to the Greater Blue Mountains World Heritage Area (GBMWhA) and parks of the Blue Mountains in particular.

2.1 Federal Government funding of the GBMWhA

Since 2001, Federal funding has largely been allocated to building visitors' centres and signage. The amount is relatively small (~\$1.25 million) and its application essentially 'cosmetic'. BMCS believes that the Federal Government's responsibility for the GBMWhA should include a properly funded: (a) 'inholdings' acquisition programme, and (b) the effective control of pest species.

(a) Inholdings

Privately-owned parcels of land ('enclaves' or 'inholdings') remain inconsistent with nature conservation, and are a threat to long-term protection of adjoining reserve. The majority of inholdings are suitable for purchase. In 2001 dollars a BMCS consultant advised that a sum of at least \$12 million over five years was necessary to purchase and manage the inholdings and thereby protect the WHA.

Since 2001, the lack of significant funding means that the under-funded sum has escalated due to inflation and, in all probability, expanding management needs.

(b) Pest management

Pest species of flora and fauna are a major threat to the ecological integrity of the GBMWhA. Despite accepting the financial benefits of World Heritage recognition, the Federal Government has little ongoing commitment to pest control, perhaps because this has little voter appeal!

In 2001, an annual budget of \$616,000 was required for pest-species management in the GBMWH (consultant commissioned by BMCS). Lack of this funding means that an annual budget in excess of \$1 million is now needed to control infestation.

It is notable that the Sydney Catchment Authority receives ~\$2.59 per hectare for pest-species management. If the GBMWH was funded at the same level, the annual budget would be ~\$1.76 million!

The low priority given to pest species allows more covert threats to be disregarded. For example, given the dearth of basic taxonomic knowledge about the soil biota, the pest-potential of bacteria, viruses and other micro-organisms is unquantifiable.

Control of imported plant and animal species is a Federal responsibility. If control were properly implemented (i.e. prohibition of further imports unless scientifically proved that adverse impacts will not occur and exceptional need is demonstrable), it would alleviate new pest problems, including those linked to genetically modified species. Surely Australia already has enough pest-management difficulties?

2.2 State Government funding of protected areas

Despite funding increases for the Environment in terms of new programs or the expansion of existing programs in 2005-06, and projected increases through to 2008-09 (State Budget Papers 2005-6), the anecdotal and direct visual evidence suggests that funding remains inadequate.

Tracks, signage and infrastructure are deteriorating, and have been for many years. Of course, it is possible to point to work that has been done, or is in progress, but the rate of improvements is failing to match the rate of decay. NPWS staff informally acknowledge this.

A request for the Department of the Environment to purchase an area known as Elphinstone Plateau or Radiata Plateau on the southern escarpment near Katoomba was rejected due to lack of funds (*inter alia*) despite the values of the area being recognised by the ALP (when in opposition) as far back as 1991. Of course one can argue priorities in terms of value for money (hectares purchased per dollar) and degree of representation of the area's values in the reserve system, but ultimately it is a matter of funding.

A new proposal (by BMCS, Colong Foundation and the Colo Committee) has been documented for State Conservation Areas and National Park extensions between Medlow Bath and Capertee. This produced a reaction from NPWS staff (as reported in the Lithgow Mercury) that they have insufficient funding and staff to cope with the existing parks, let alone adding to them.

Although there can never be enough money, weed infestation in parks and in 'buffers' abutting parks requires continuous action that is beyond NPWS resources. Numerous bush-care groups and other volunteers, whose time and energy are largely unfunded, assist with moderating the infestation but it is far from under control.

The Carr Government had a strong environmental record in terms of expanding the NSW National Parks system,, but funding for the State's protected areas has not matched the needs. The State's unhealthy financial position is likely to impact on funding of lower profile matters that lack overt voter appeal.

3. THREATS

3.1 Climate change

BMCS sees climate change as a (if not the!) major factor impacting on the GBMWH and the national parks.

Debate exists regarding the relative impacts of greenhouse gases, particulate pollution and deforestation on climate change. Statistical evidence supporting climate change is possibly within the limits of 'natural' variations preserved within historical records and longer-term pre-historic data. Nevertheless, few would disagree with the statement that climate change is accelerating.

Increasing temperatures and decreasing rainfall statistically evidence climate change in the Blue Mountains. More days of high fire danger and more frequent bushfires will destroy many plants and animals, and be an important contributing factor in species loss. Rainfall reduction will impact on water-dependent plant communities and their associated biota.

The Federal Government is committed to a fossil-fuel economy as long as coal remains nationally and internationally viable. There are few significant signs that the State Government will contest this. The recent meetings between the Federal Government, USA, China and Japan produced nothing substantive. Relying on business-driven technical innovation with nothing mandated is a recipe for disaster.

BMCS contends that the Federal Government should think beyond short-term political advantage, unchecked growth and unmitigated self-interest. The Federal Government should sign the Kyoto protocol and enact legislation that ensures the reduction of greenhouse

gas emissions by 70-80% over the next 50 years. In this context, there would be nothing to stop self-regulation by environmentally conscious business from using technical innovation to shorten the time-frame.

3.2 Groundwater exploitation and surface water

BMCS contends that the use of groundwater, particularly as now advocated by the State Government to 'solve' Sydney's water-supply problem and resolve the electoral damage resulting from the desalination plan, is a major threat to the GBMWA and the Blue Mountains national parks.

Groundwater is an economic resource, irrespective of whether it remains in place or is extracted. In place, it supports the scenic value and biodiversity of swamps, ponds, lakes, watercourses and cliff-related spring and seepage sites, together with the dependent tourist industry; it reflects the time-dependent dynamic balance between natural discharge and recharge. When extracted, it variously supports a range of domestic, recreational, agricultural and industrial activities; but extraction disturbs the natural dynamic balance and the environmental consequences may be extremely unacceptable.

Regrettably, when environmental health and longer-term public interest are weighed against shorter-term political expediency, there is no contest.

The principal threats to a groundwater resource are (a) climate change, (b) 'excessive' extraction, (c) contamination and (d) viewing groundwater and surface water as independent variables. Threats (a) and (b) affect the quantity, and this impacts on groundwater dependent ecosystems and scenic tourism. Threat (c) affects the quality, and this impacts on the domestic, recreational, agricultural and industrial use of groundwater. Threat (d) stems from the insane belief that groundwater exploitation will not adversely impact on surface flows and impounded water-supply volumes.

(a) Climate change and groundwater

In the Blue Mountains, climate change (section 3.1) means higher temperatures (equals more evaporation and less infiltration) and lower precipitation (equals less infiltration). Both lower the watertable, thereby reducing the available resource and adversely impacting on vulnerable ecosystems. Parks will inevitably suffer as climate change intensifies.

(b) Excessive extraction

This stems from political expediency and ignorance, inadequate control of bores and springs, and land-use changes. For the Blue Mountains and over much of the State, there is an abysmal lack of knowledge regarding the economic benefits of leaving groundwater *in situ* versus exploiting it. For Blue Mountains' aquifers, little is known regarding recharge sites and rates, and flow directions and their rates. There is doubt over the numbers and locations of springs and licensed and unlicensed water bores, the aquifer-geometry being tapped, and the amounts of water extracted. This is exacerbated by land-use changes in which 'bush' is replaced by development, such that run-off from hard surfaces reduces infiltration and the watertable suffers. Yet despite this being critical to finding an informed compromise between a sustainable water-balance (i.e., when natural and 'engineered' discharge is balanced by natural recharge) and environmental sustainability (i.e., when the dynamic balance between natural discharge and recharge is undisturbed), little effort is made to curtail or even monitor extraction.

(c) Contamination

Groundwater quality can be compromised by surface or near-surface contaminants, and by the aquifer's rock type. Quality in the Blue Mountains' sandstone aquifers is usually good (but not necessarily potable), but that from coal measures aquifers is typically more saline and contains heavy metals. Groundwater sourced from the Southern and Western Coalfields would need to be diluted with less 'contaminated' sources before treatment.

(d) Interdependence of groundwater and surface water

Groundwater and surface water are not separate problems. Much groundwater discharges as springs, swamps and effluent portions of creeks, ponds and lakes. It thereby adds to surface water flows. In the Blue Mountains, the contribution of groundwater to surface flow varies with the fluctuating watertable, but more than 75% of the annual recharge ultimately flows down creeks and rivers and into water supply dams.

When golf courses, sports fields and gardens proudly proclaim their use of bore water, when groundwater is extracted at little cost and bottled as high-cost mineral water, and when coalmines tap aquifers to the tune of 10's of megalitres per day, there are consequences. These include environmental degradation, reduced and costly water access, and falling water-supply reservoirs. Our parks bleed into the coffers of the water bottlers!

3.3 Fires and fire management

The implications of climate change are that the GBMWA and national parks will experience hotter and more frequent fires.

(a) Fires

The interaction of fire with flora and fauna is complex because some ecosystems have adapted to a variety of fire regimes. For example, fire promotes seeding and regeneration of many native plants in sclerophyll communities, some species can only colonise unburnt areas, and other species such as Dwarf Mountain Pine never recover from fire. Regardless of whether the fire is natural or part of a hazard-reduction program, it promotes fragmentation of habitat, thereby limiting the viability of some flora and their dependent fauna.

(b) Fire management

Apart from a change in vegetation structure, loss of habitat and inevitable loss of species, other concerns include: soil erosion and weed infestation in the aftermath of fire – necessitates costly remedial action; fire frequency – even when fire favours species propagation, repeated burning dilutes the seed bank and weakens the capacity for new growth.

Fire management by regular broad-area burning (Strategic Fire Management) of national parks can cause excessive environmental damage through gaining and preserving ground-access, cutting containment lines and back burning, and loss of biodiversity from repeated burning. In addition, when permanent or temporary fire trails open-up a region, they rapidly become a focus of unauthorized use. This increases erosion, further damages the bush as ‘off-roaders’ push the frontiers, and enhances the risk of man-related fires.

Fire management tends to be developed in a climate of recrimination, too often fanned by the media. Governments exercise the knee-jerk reaction, particularly if someone dies. It is far too easy to say that ‘x’ wouldn’t have happened had ‘y’ been burned; but even though the argument has some validity, it disregards the whole basis for having national parks. Taken to the absurd, fire management would be greatly improved by clearing everything and covering the remains with concrete!

There is substantial need for more research into the costs and benefits of fire management practices away from the urban interface. Community education is needed in relation to the distinction (from fire fighting and fire management viewpoints) between fires at the urban interface and those deep within parks, and most importantly, the reasons why we have national parks.

3.4 Peripheral effects

These range from urban residential and industrial encroachment, through agricultural constraints, to interaction with recreational pursuits and the mining and extractive industries. They are here restricted to recreational pursuits and the mining and extractive industries along the western side of the GBMWA and national parks. This region is emphasised because much of it should have been originally included in the GBMWA and national parks; and it is now subject to the Gardens of Stone Stage two proposal (currently before State Government) which advocates protection within State Conservation Areas and National Park extensions.

(a) Sand extraction

The Department of Planning, as part of its Sydney Construction Materials strategy, is currently evaluating many parts of the greater Sydney region as potential sources of construction sand. One such area is the Newnes Plateau north from Clarence. It abuts the National Park and the GBMWA.

Sand quarries raise many environmental concerns:

- they have a disastrous visual impact in terms of the total stripping of vegetation, the dimensions of the quarry and the associated treatment plant and workshops, the dust cloud associated with the workings, and the impossibility of meaningfully rehabilitating the site once the resource is exhausted – this could be visible from the GBMWA, as well as locally;
- they have the potential to disrupt and contaminate surface drainage and, as quarries deepen, they can lower the local watertable – this is of particular concern to Clarence Village, but it could also impact beyond the immediate area in terms of the drying out of swamps and water courses and the consequent loss of habitat;
- they result in the total destruction of local habitat – this could include threatened and endangered species, and sites of archaeological significance;
- the associated quarrying and treatment machinery and the on- and off-site transport system create noise pollution – this could impact on nearby parts of the GBMWA;

- related tracks and access roads open the immediate region to unauthorized use and increased fire risk; and
- concern is disproportionately magnified for several quarries in that the impacts are exponentially cumulative.

The solution to the problem is clear. If the GBMWhA, the national parks and the ambience of this spectacular region are to be preserved, existing sand extraction should be tapered off and no more licences granted. The region should become protected as a State Conservation area.

(b) *Coal mining*

Several coalmines (mainly owned by *Centennial Coal Company Limited*) exist in the region. The mine workings are underground, but each mine is associated with a treatment facility, workshops and office buildings. The mine sites create similar concerns to the sand quarries, but have notable differences: (i) dust and noise are less of a problem because of underground mining (but not treatment); (ii) the absence of a quarry reduces visual impact and avoids the difficulty of rehabilitating a very large rectangular hole with 80° walls.

The principal environmental concerns with coalmines are as for sand mining (bullets 1, 2, 5 and 6 above), together with the impacts of subsidence and mine-water make and disposal. Potential exists for:

- subsidence-related modifications to surface drainage (swamps and creeks) in terms of flow volumes and directions, watercourse gradients, and water quality;
- destruction of scenic value through subsidence-induced damage (toppling, cracking and rock falls) to pagodas and cliffs;
- substantial modification to the natural hydrologic regimes due to the mine workings breaching important aquifers – the inflow and disposal of large volumes of groundwater (e.g. 10+ megalitres per day) cannot be disregarded;
- creating a network of tracks (for monitoring the potential problems arising from subsidence) that open the area to trail bikes, 4-wheel drives and other destructive activities.

All new underground developments must now be accompanied by subsidence management plans that present avoidance, minimization and mitigation practices, and/or emplace rehabilitation and compensation commitments. The potential environmental consequences of underground mining are therefore being addressed. Nevertheless, visual and noise impacts, and disturbance of the hydrologic regime, extend beyond lease boundaries and impact on the GBMWhA and parks.

Expansion of the coal industry over the next 20-30 years will continually impact on the existing parks and GBMWhA.

(d) *Recreational pursuits*

The western escarpment and the Newnes State Forest are the locus for recreational activities (many unauthorized) including mountain biking, trail biking, 4-wheel driving, hunting, climbing and abseiling. This has become possible due to access via forestry tracks and roads. It reflects insufficient effort by the appropriate authorities to regulate the activities.

Like weeds and feral animals, high impact human activities migrate from adjacent regions into the GBMWhA and national parks. They constitute a threat to the integrity of these protected areas. Funding to properly control the activities is essential.

3.5 Government legislation

(a) *State*

Pieces of special-purposes legislation (e.g. the *Filming Approval Bill 2004* and the *Snowy Mountains Cloud Seeding Trial Bill 2004*) have over-riden parts of pre-existing acts, restricted community consultation, limited third party rights, and extended the relevant minister's discretionary powers. Such legislation, together with the *Crown Lands Legislation Amendment (Budget) Bill*, the *Sustainable Energy Development Repeal Bill*, the *State Water Corporation Bill 2004*, the *Water Management Amendment Bill 2004*, the reviews of the *Threatened Species Conservation Act* and the *Sydney Water Catchment Management Act*, seem to have collectively eroded environmental outcomes in favour of the commercial interests of developers, farmers, irrigators and invasive recreational businesses.

The extremely frightening *Environmental Planning and Assessment Amendment (Infrastructure and Other Planning Reform) Bill 2005* has exacerbated environmental regression. For example, the desalination plant at Kurnell was, and the Emirates resort proposal for the Wolgan Valley is, being progressed using the *EP&A Amendment Bill* – even the proponents and the DEC are far from clear about the specific procedures that should be followed.

Biobanking, a biodiversity offsets and banking scheme that is scheduled to be implemented by the Department of Environment and Conservation in 2007, now confronts the environment. Sand mining could be allowed to 'offset' irreparable damage to Newnes Plateau by either 'rehabilitating' a previously damaged area or purchasing credits in a rehabilitation scheme. *BioBanking* is environmental death by a thousand cuts, in that more destruction is sanctioned in exchange for papering over an existing atrocity.

All of these acts and processes are designed to make the legitimate pursuit of environmental concerns more difficult. It is conceivable that developments adjacent to (or perhaps even in) reserved areas could be approved in the State's economic interest, particularly if they purchase enough credits!

(b) *Federal*

The *EPBC Act* could be a way of counteracting damage to endangered species in parks and around their periphery, and perhaps redress the extremes of State legislation. Unfortunately, it would seem that attempts to use this strategy rarely meet with success. Could it be, where business is concerned, that there is little Federal will to intervene and perhaps infringe state rights?

4. GOVERNMENT'S RECORD

This is restricted to NSW and the Blue Mountains.

The Carr Government has done much to increase the number of parks and protected areas in various portions of the State, but there are still substantial gaps to be filled both in the land under park tenure and also in the management of parks.

The Blue Mountains region is generally well protected by parks and the Federal Government finally supported World Heritage listing. Nevertheless, significant portions of the Blue Mountains remain unprotected, despite being included in park proposals. Excisions from earlier proposals were commercially based in that they seem to reflect the distribution of certain natural resources or private holdings. It is regrettable that the excised areas contain some of the most spectacular scenic, heritage, geomorphological and geological values. These areas and their values are the basis of the Gardens of Stone Stage two proposal.

The important thing to gain from this is that the job of government to reserve examples of the States' diverse values is not complete. It would be easy to emphasise the positives and rest on these laurels, but they are at best a good foundation. Some parks have been declared, but protection is in its infancy west of the Great Dividing Range. As in the Western Woodlands, the principal need is restoration (to attempt development of some ecological integrity in highly degraded regions). There is also need to recognize the value of remnant areas of natural ecosystem and ensure that they are adequately protected and linked within a protective continuum.

Now is the time for government to accelerate the process and take the next step by adequately funding the establishment and proper management of the system.

**Dr Brian Marshall, President,
For the Management Committee.**

23 February, 2006