FRIENDS OF WAITE CONSERVATION RESERVE Inc.
c/o Urrbrae House
University of Adelaide – Waite Campus
PMB 1, Glen Osmond South Australia 5064

ABN 30 644 626 995

President: Chris Kaczan
Secretary: Joe Haslam

Submission to the Senate Committee inquiring into Australia's Na
Reserve System

I have pleasure in providing the following submission on behalf of the Friends of the Waite Reserve Inc.
This reserve is in the hills face zone of Adelaide immediately behind the city and its 130 ha. contains the best surviving examples of Grey Box woodland in the Mount Lofty ranges. While our activities focus primarily on the protection and rehabilitation of the reserve, we have also been asked to provide comment on broader issues such as the State Governments Hill Face Zone Review.

This inquiry into Australia's park system is in our view one of the most important initiated by the Senate on natural environmental issues.

In a speech last week the South Australian environment minister John Hill M.P. pointed out that between 80-90% of agricultural land in SA is cleared. He said that from the air only small islands of native vegetation remain. More specifically in the Mount Lofty Ranges only 7.1% of woodland still remain and many of these are small fragments without adequate protection. (Paton, 2004) In common with many areas from around Australia the woodlands in the Mount Lofty Ranges are impacted by human activities including some agricultural practises, urban sprawl and the spread of feral animals and plants. Our comments draw on our experience from the local area but where it's relevant we extend our arguments to the broader Australian context.

A. The values and objectives of Australia's national parks, other conservation reserves and marine protected areas.

The areas currently conserved in the Mount Lofty Ranges were created for a variety of reasons including recreation, conservation and tourism. There is now a growing understanding that the conservation of whole ecosystems with maximum biodiversity values is of paramount importance. Aiming to conserve as many species as possible should in our view be a prime objective of Australia's park system. Keeping this biodiversity of life is environmentally important in the long term. For example, bioprospecting of salt tolerant genes from native plants may be used to develop salt tolerant crops. E. O. Wilson (2002) notes that only a tiny fraction of our planets biodiversity has been used in medicine. For example 85% of current antibiotics come from only the 2-3% of plants and fungi that have been screened for medicinal use. For both ourselves and future generations we need to conserve the largest range of species possible.

As mentioned above many of our parks and reserves are both small in size and isolated. They form habitat "islands" in a sea of agricultural and urban land. Studies from around the world suggest that the removal of 90% of the habitat allows about half of the species to hang on. Removal of the final 10% can wipe out the remaining species. (Wilson, 2002). These figures from one of the pioneers of island biogeography theory and its application to national parks underline the importance of enlarging and consolidating the existing fragmentary reserve system.

Our parks are valuable for other reasons. The large iconic parks such as Uluru, Kakadu, Flinders Ranges and the Great Barrier Reef are economically very valuable for the tourism industry.

The vegetation in many state forests and water catchment areas help to significantly improve the quality of water runoff. In the drier regions parks and reserves supporting large areas of native vegetation may well help to mitigate dry land salinity. This results in a gain to the whole economy when the mobilisation of salt into adjoining areas is prevented.

A final intrinsic value of parks is their ability to enrich human existence. Perhaps the popularity of "Wilderness " and "Wildlife" calendars is testament to an appreciation of our more isolated parks even if one is unable to regularly visit them.

B. Whether governments are providing sufficient resources to meet those objectives and their management requirements.

The Waite Conservation Reserve has benefited from a number of federal funding programs such as the Natural Heritage trust and Work for the Dole.
Over 250 native plant species have been recorded from the reserve and our major pest plant, the olive, has a particularly detrimental effect on the native flora. The Commonwealth funding programs along with contributions from Adelaide University, donations and bequests have been essential to provide for rabbit and fox control, spot spraying, signage and track and fence maintenance.
The part time employee and volunteers engaged in this work are also funded to ensure that:

1) up to date training and technical advice is accessed
2) our weed and fox control work is coordinated with neighbours to ensure maximum effectiveness and:
3) follow up monitoring to determine and document the effectiveness of our revegetation efforts is completed.

In addition, we access other resources indirectly provided by local, state and federal governments. These include advice and technical support from CSIRO, University of Adelaide, PIRSA and local council environmental officers.

Based on our experience, the observations we would make about the delivery of government support are:

1) For many revegetation type projects a 12 month funding cycle doesn't allow sufficient time in cases of poor seed , poor seasons or poor weed control and a two or three year time line is needed to realistically complete the work.
2) Site maintenance and follow up work needs to be planned for.
3) An appropriate monitoring plan should be built into the funding proposal.
4) Considering the difficulty (impossibility?) of rebuilding an ecosystem from scratch, priority should be given to protecting existing remnant vegetation.

Similar issues and suggestions are collated in Bush care support (Smith 2003)

A trend over the last two or three decades has been the increase in the number of private sanctuaries or parks that have been developed by individuals, interested groups like Bird Australia and companies like Earth Sanctuaries Ltd. These often trial new methods and can focus on the job at hand. Problems arise when as illustrated by Earth Sanctuaries Ltd. they run into financial difficulties that result in lack of public access and incomplete work. A well run public parks system with its continuity over the long time spans required, needs to be developed with commonwealth support along with the private parks.

C. Any threats to the objectives and management of our national parks, other conservation reserves and marine protected areas.

The significant threats to our parks mean that they can't guarantee the protection of their biodiversity over a long period of time (Possingham, 2006). These threats are discussed below under the headings of size and shape of reserves, tourism pressure and feral animals and plants.

Size and shape of reserves.

As mentioned above, large reserves typically support a larger range of species. Research from the University of Adelaide shows that woodland birds like the Scarlet Robin need a home range of between 3 -50 ha to be able to successfully raise their young (Paton, 2004). Other examples of birds in decline include the once common Dusky Wood Swallow, Willie Wagtail and Brown Treecreeper. A number of species such as the Bush Stone Curlew and the Azure Kingfisher are locally extinct in the Mt. Lofty Ranges. Professor Hugh Possingham (1999) notes that the diminishing bird species are indicative of a declining ecosystem that will not be able to provide the quality ecosystem services that support forestry, agriculture and other economic uses of the land.
There is some good news in that data from extensive revegetation projects at Monarto on the eastern side of the Mt. Lofty Ranges suggests that large scale revegetation can support a diverse if not complete avifauna (Paton 2004).

Pressure of visitors and tourism.

Whilst the economic benefits of tourism are substantial, visitor use can have a number of deleterious side effects. In the Waite Conservation Reserve these are relatively minor such as mountain bikes damaging trails, but in other parks a range of uses such as horse riding, trail bikes and four wheel driving are not appropriate in the most pristine and

sensitive areas. Adjoining areas can be allocated for some of these activities and there is scope for governments to help acquire such land. The development of a mountain bike park in an old quarry not far from Cleland, Brownhill Creek and Waite reserves is a good example of how governments can help release the pressure on nearby high quality vegetation.

Feral plants and animals

As noted above, feral animals and plants provide a significant threat to not only the grassy woodland reserves in the Mount Lofty Ranges but in many other Australian parks. The government funding of CSIRO, University and State departments of Primary Industry programs to reduce this threat is most welcome. Never the less further initiatives are required.

D. The responsibilities of governments with regard to the creation and management of national parks, other conservation reserves and marine protected areas with particular reference to long term plans:

Australia's unique flora and fauna has been described as mega diverse. Some areas such as the South West of WA. are "hotspots of diversity". Rainfall, temperature patterns and other climatic effects are also changing (Flannery, 2005). In the past plants and animals have responded to climatic change by either becoming extinct or by migrating to more favourable locations. This migration is difficult or impossible to achieve when the only habitat available consists of isolated reserves in a sea of agricultural land.

In the Waite Conservation Reserve the large majority of tree species are eucalypts. Studies by Hughes (1996) show that many gum tree species occupy a very narrow temperature range. Many species cannot survive an average temperature change of only two degrees.

Both federal and state governments have funded programs aimed at assisting primary production in a warming world. A similar research effort should be made to help mitigate the effects of climate change on the ecological integrity of our reserve system.

E. The record of governments with regard to the creation and management of national parks, other conservation reserves and marine protected areas.

The record of governments in creating parks and reserves improved considerably in the latter part of the twentieth century. While the overall area of reserves has increased it is noticeable that specific vegetation communities like grasslands and grassy woodlands remain underrepresented within the reserve system.

The considerable cost of land in some areas such as near cities and along coasts and waterways can be prohibitive when governments try to improve the reserve system. For example, when the South Australian government put in a "fair value" bid for a parcel of land that would link up five smaller reserves it was significantly outbid by a private buyer. Land which has a long term community benefit should be able to be purchased and perhaps supplementary Federal funding is a solution in these situations.

Conclusions

We have discussed the terms of reference largely from the Waite Conservation Reserve perspective as this is the area we have worked on and know best. We are aware of but have not discussed the issues facing marine parks and reserves and the perilous situation of many freshwater parks and reserves along the Murray and other river systems in Australia.

Overall there is a real need for the Commonwealth to provide the leadership and the funding necessary to help improve and manage Australia's reserve system.
We feel that the Commonwealth should make sure that:

1) there is an adequate range of protected ecosystems.
2) their areas are of sufficient size for the long term survival of their flora and fauna
3) adequate funding is provided for the long term management of their ecological communities.

Changing times and changing circumstances necessitate a continued effort to keep the core biodiversity values of our reserves for our present and future generations.

"In the end our society will be defined not only by what we create but by what we refuse to destroy" John C Sawhill (1936-2000) President, The Nature Conservancy, 1990-2000.

C Kaczan
President
28/02/06

References

Flannery, T. 2005. The Weather Makers. Text Publishing, Melbourne

Hughes, L. Cawsley, E.M .& Westoby, M. 1996 Climatic Range sizes of Eucalyptus Species in Relation to future Climate Change. Global Ecology and Biogeography letters 5 p23-29.

Paton D. 2004 Unpublished speech at the University of Adelaide.

Possingham H.. 1999. *Earthbeat,* ABC Radio National, broadcast 27/11/99.

Possingham, H. 2006 *Big Ideas* ABC Radio National, broadcast 22/01/06

Smith, K. Prescott, A. Carter, C. Berkinshaw, T 2003. Native Vegetation Management. A needs analysis of regional service delivery in South Australia.
Bush care support, 2003. Environment Australia.