

MANAGEMENT OF “WILD” CAVES IN NEW SOUTH WALES

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Abstract

There are more than 100 caving areas recognised in New South Wales. More than one-third are under the “care, control and management” of the New South Wales National Parks and Wildlife Service. Four major areas come under the *aegis* of the Jenolan Caves Reserve Trust. A further group are managed by a number of community-based trusts answerable to the Department of Land and Water Conservation. Most areas are on private land. In several cases the management of privately-owned caves has been devolved to organised caving societies.

Management styles vary from “anything goes” through to strict regulation with access only for scientific reasons. A number of permit systems operate with varying degrees of success. Some areas are of mixed tenures and different management practices operate as a result of this.

This paper describes a range of the management practices and styles and discusses some of the issues confronting cave managers in this State. A major issue is the very high visitor numbers and therefore, environmental pressures on some cave areas such as Wee Jasper and Bungonia. In others the remoteness, such as Stockyard Creek and Indi, makes active management difficult or impracticable.

INTRODUCTION

The intensity and effectiveness of wild cave management in New South Wales ranges from highly regulated (but not necessarily effective) to complete “open slather”. In many of cave areas, unless staff are based in the area it is impossible to enforce regulations where people choose to ignore the regulations. Management regimes are largely historically-based as in that they have evolved from past management practices without any understanding of the values or sensitivities of caves and karst.

With growing levels of interest in, and sophistication of, karst management in the State, managers and users have struggled to find ways to protect cave values and to fulfil demand. As our knowledge of the values of caves and cave areas increases we are driven to find ways to better manage the resources. The demand pressures are very high, diverse and increasing (and sometimes increasingly bizarre).

Perhaps the major problem confronting proper management of the resource are the difficulties imposed by lack of effective control in the past. It is near-impossible to switch off demand for areas once they have been made available and there is a finite resource with high levels of traditional use concentrated within easy driving distance from Newcastle, Sydney, Wollongong, Canberra, Bathurst and Wagga Wagga.

The make-up of demand has also changed significantly over the last few decades. In the past, users were made up of organised caving societies, family and some youth groups and the “Saturday-night impactors”. Today, especially in areas such as Bungonia and Wee Jasper, youth groups of many flavours, school groups, commercial operators, fire brigades, ambulance and the military compete for space in what Kevin Kiernan has termed the “underground gymnasium”. In some of the traditionally more proscribed areas “adventure caving”

is having an impact – at least in the terms of increased use.

There are more than 100 caving areas recognised New South Wales (Matthews 1985). Peter Dykes (pers. comm.) expects this number to rise to >130 as a number of areas not included in Mathews are included and there are various splitting and lumpings of previously defined areas currently under discussion. These ~130 areas are found within the 450-500 limestone deposits listed in Lishmund et al (1986). There are a few pseudokarst caves inland and very large numbers of sea caves. Many of the non-coastal pseudokarst caves are in the Sydney Basin sandstones and management of the famous canyons of this area might be considered a cave management issue. They will not be treated as such here although there are many similarities to cave management issues.

More than one-third are under the “care, control and management” of the National Parks and Wildlife Service (NPWS). Four major areas come under the *aegis* of the Jenolan Caves Reserve Trust (JCRT). Both the NPWS and JCRT are managed under the National Parks and Wildlife Act (as amended) but with different responsibilities. The Trust is almost a parallel national parks system.

A further small group are managed by community-based trusts answerable to the Department of Land and Water Conservation. These include parts of the Wellington, Wee Jasper, Moore Creek and Timor cave areas. Many of the more significant areas in the State were previously managed in this way but are now either managed by the JCRT or NPWS.

The largest numbers of defined cave areas are on private land. Although there are individual and very important exceptions, the values of these sites are lesser than the

areas discussed above. Lack of karst resource assessment on private lands may well colour the above, perhaps sweeping, statement. In several cases the management of privately-owned caves has been devolved to organised caving societies. This has proved quite successful as at Cliefden and Walli.

The discussion of wild cave management approaches in the State follows in a tenure-centred fashion below. There are difficulties with this approach in that in some areas (e.g. Wellington, Timor, Macleay Valley (Yessabah westwards to Stockyard Creek)) are of mixed tenure, i.e. private and public lands.

The management of wild caves and their surrounds is frequently controversial and difficult to implement in any meaningful way. The resource is limited, the demands are high and an increasing number of people are wishing to use caves for a variety of purposes. Increasing publicity, the demand for adventure activity – often of a “wham, bam, thank you Ma’am” nature – and a general lack of recognition that caves are steadily degraded by use all contribute to management difficulties. In addition lack of understanding, of management resources and enthusiasm all add to the problems as does the multiplicity of management agencies.

National Parks and Wildlife Service

As noted above the NPWS manages about one-third of the State’s cave areas including many of the more significant areas including the Yarrangobilly show caves. Interestingly, and with one exception (Ashford), all areas now have their entire catchments within national parks or nature reserves. Many of the Service areas are remote – some within formally gazetted Wilderness. Remoteness does not necessarily provide protection as in the case of Indi in the far south of Kosciuszko National Park as there is relatively unfettered access from Victoria.

The NPWS has “care, control and management” of national parks, nature reserves and a variety of other reserve types through the National Parks and Wildlife Act 1974. Although the Act does mention karst quite frequently (and provides a definition) it does not specifically mention any responsibility to directly manage cave recreation but rather specifies that flora, fauna and natural phenomena are to be appropriately conserved – and that there should be opportunities for scientific research, education and recreation. Specifics are left to the Land Management Regulation (1995, currently being amended) which states *inter alia*:

Division 3 Regulation of conduct generally

Caves

21. (1) A person must not enter or remain in a cave in a park except with the consent of the park authority.

Maximum penalty: 10 penalty units.

(2) A person must not in a park:

- (a) exhibit a number or other identifying mark in or near a cave in a manner which suggests that the number or

mark has been allocated to identify the cave; or

- (b) carry out any excavation, or use any explosive, in or in the vicinity of a cave; or
- (c) use any string or other thing for the purpose of laying a track in a cave; or
- (d) remove from a cave:
 - (i) any rocks, soil, sand, stone or other similar substances; or
 - (ii) any flora or fauna; or
 - (iii) any equipment; or
- (e) interfere with any equipment in a cave; or
- (f) smoke any substance or any cigar, cigarette, pipe or other device in a cave; or
- (g) light a fire in a cave; or
- (h) leave any equipment in a cave whether or not the person intends to return to the cave; or
- (i) urinate or defecate in a cave.

Maximum penalty: 10 penalty units.

Whilst these might provide a framework for regulating behaviour (especially if they were enforceable) they do not provide much guidance for the “whole-of-ecosystem” approach needed for effective cave and karst management. We return to this point in the discussion section below.

The various administrative areas interpret the regulation in a variety of ways to suit local requirements and user demand. Further guidance is given by formal, statutory Plans of Management for each park or reserve although it is fair to say that management specifics are generally glossed over. There are exceptions which provide far more detail (e.g. the Cooleman Plains Karst Area Plan (Spate 1982) and the draft Yarrangobilly Caves (Spate 1990) and Deua National Park Karst Area Plans).

In some areas the Service has actively sought the involvement of the using community through advisory groups such as the Bungonia Recreational Activities Group (BRAG) in addition to the formal park or district Advisory Committees created by the Act. A more recent innovation, spearheaded by the current Service karst officer, Jane Gough, has been the formation of the Southern Karst Area Managers (SKAM). This group has brought together the rangers and managers responsible for caves and karst from the Blue Mountains to the Victorian border so that a more consistent approach to management can be established. Fairly regular liaison is also maintained with other Service areas across the State. However, long-standing differences in philosophy across the three cave-managing Service Directorates continues to create problems. There is currently a push at Head Office level to develop State-wide, all enveloping policy on wild cave use.

In most NPWS managed areas there are various types of permit systems operating. Some of these almost “rubber-stamp” applications – others are far stricter. In some cases administrative fees are applied on each application. In others the system is regarded as a valuable management tool promoting interaction, feedback and reporting of discoveries.

Jenolan Caves Reserve Trust

The Trust (JCRT) manages four cave areas (Borenore, Abercrombie, Jenolan and Wombeyan). Borenore is a recent addition to JCRT management and has a series of easily accessible wild caves close to the major rural centres of Orange, Bathurst and Dubbo. The other three are important show cave destinations which are important wild cave destinations.

The Trust areas are managed as Karst Conservation Reserves under the National Parks and Wildlife Act. There are new plans of management for Borenore and Wombeyan very much in the style of NPWS broad plans. Jenolan operates under an old, and largely, redundant plan created in 1989. Except for Borenore where access is largely unfettered, access to the wild caves is by a permit system similar to many of the NPWS systems. Community input is provided through a Speleological Advisory Committee and, to a lesser extent, by the Trust's Social and Environmental Monitoring Committee.

As with NPWS managed areas there are concerns about increasing levels of use and of cave degradation through overuse.

Department of Land and Water Conservation Trusts

Parts of the Wellington, Wee Jasper, Moore Creek, Timor and, until recently, Ashford, cave areas are managed by community-based trusts. The trusts are essentially relics of a time when very many NSW cave areas were managed as "Reserves for Public Recreation and the Preservation of Caves" under the former Crown Lands Act 1909). In some cases the trusts have cave management expertise amongst the members (Wee Jasper) or on advisory committees (Wellington).

Both Wellington and Wee Jasper operate show caves in addition to managing wild caves. In the latter case, Careys Cave is leased to a private operator. With the exception of Wellington active management of the wild caves is very much a *laissez-faire* operation chiefly because of long-entrenched visitor use patterns, lack of knowledge or, more importantly, very limited resources. Wee Jasper, in particular, is a very worrying situation because of the high levels of use – often by over-large and inexperienced groups. The two most heavily used caves require single rope techniques and are heavily polished sometimes extremely slippery.

Timor and Ashford have suffered very much from the "Saturday night impactors" and are some distance from any feasible management agency. They are fine examples of how signage often achieves nothing but the establishment of targets! Ashford has recently come under the control of the NPWS but it is difficult to see how much can be achieved without a virtually continual ranger presence.

Caving Society Management

Access to Cliefden and Walli has been managed by Orange and Sydney Speleological Societies respectively for a number of decades through loose arrangements

with the owners of the freehold lands. In general these arrangements seem to have worked well although there have been concerns expressed about the levels of impacts on some caves at Cliefden

Other Privately-owned Lands

Most of the "defined" cave areas in NSW are on privately owned or leased lands. Management of these areas ranges, as does that of the institutional management, from active protection to indifference. Some areas like Rosebrook (near Cooma) have formal systems where cave users must apply in advance and sign indemnity forms. Others are virtually completely off limits to all. In many cases the land holder does not realise what he or she has under their lands – they are often fascinated when informed of the values and significance of their caves and karst. The recent surveys by the Australian Speleological Federation (Dunkley and Dykes 2001) and by Eberhard and Spate (1995) point to the importance of many of these areas – some only a few hectares in extent (e.g. Talmo, Bowen Park).

In general all that is necessary is to convince the landholder of one's *bona fides* – and to respect the "countryside code." There are exceptions of course and caves have been blocked for many reasons and the convenient hollows make for "good" rubbish disposal sites.

ROLE OF THE AUSTRALIAN SPELEOLOGICAL FEDERATION INC.

The constitution of the Australian Speleological Federation Inc. (ASF) provides for local speleological councils to establish liaison between caving clubs and other cave-using organisations and with management authorities within the local area. In NSW there is the NSW Speleological Council which usually meets twice a year to discuss such matters. The Federation, through the Speleological Council, also has representation on the Wellington Caves Advisory Committee, the Bungonia Recreational Activities Group and the Jenolan Caves Reserve Trust and its Speleological Advisory Committee. Steps are underway to involve the Council in setting the proposed NPWS State-wide policy.

Many ASF member societies have close affiliations and excellent working relationships with management agencies especially at the cave area level.

DISCUSSION

The discussion that follows picks up on a number of disjunct themes in wild cave management in NSW. Invariably there are two or more views on many of these issues and they are raised here simply to promote discussion amongst cave managers and users. A number are more fully discussed in Spate and Hamilton-Smith (1993).

THE TRADITIONAL OWNERS

One aspect of wild (and show) cave management that has not received much attention is that of Aboriginal people's needs in relation to caves. Although use may well have not been intensive, Spate (1993) has drawn

attention to the widespread reports of associations between Aboriginal people and caves across southern and central NSW. The legend of Gu-rang'atch at Wombeyan and Jenolan points to mythical and spiritual sides to cave use and hence management which have only been given lip-service in the past.

In recent decades there have been at least four incidents where skeletal material in particular has not been given the respect it deserves from either the traditional owner's or scientific perspectives. It behoves managers and users to approach both physical and spiritual matters with more sensitivity in the future.

SUPPLY AND DEMAND

The supply of caves is essentially finite although new discoveries do happen from time to time. Given the small size and scale and the degree of cave development of most of the State's impounded karsts the discovery of many more caves seems unlikely. Significant new discoveries should be very carefully managed especially if in heavily used areas.

One obvious problem here is, that whilst there are thousands of caves listed in Matthews (1985) for example, there are very few iconic caves. These are the caves that everyone wants to visit and thus these are the caves that may be suffering most. Examples include Eagles Nest at Yarrangobilly, Odyssey at Bungonia, Sigma at Wombeyan and Mammoth at Jenolan.

Managing demand is very difficult given entrenched use patterns, the extraordinary rise in the numbers of people caving – largely outside organised speleology – and the greater range of uses to which caves are being put. Confined space training and commercial team-building experiences are but two examples of the latter which have significantly impacted on caves at Bungonia and elsewhere – and have lead to some bizarre rescues. A slowing economy has both pluses and minuses in this regard. Fewer people may be travelling but they may also be looking for newer and cheaper experiences closer to home.

One way of regulating demand is by keeping new discoveries secret. Obviously this works on some occasions but usually the word gets round. Examples include Deua Cave in Deua National Park, Red Cave in Blue Mountains National Park and the extensions to Drum Cave at Bungonia.

Cave gating can often be a further red-herring in the managing of supply. They require continual management oversight – at the every least and may well create other problems such as changing nutrient supply or bat access to caves.

PUBLICITY

Having said above that cave protection by secrecy is not always an effective mechanism at the other end of the spectrum is the wholesale "advertising" of caves by the many media sources does not necessarily help either. The explosive development of web pages giving information on cave areas including lists of caves and sometimes locations is but one worrying trend in the

rise of public information about caves. Sometimes these web pages are caving club-based and come from those who only a few years ago were fanatical about secrecy.

Identical "Google" searches (<www.google.com>) eleven months apart for "Cooleman Caves" lead to 75 hits then ~110; for "Bungonia Caves" ~250/~526!; for "Yessabah Caves" ~40/~44 and for the remote "Ashford Caves" ~20/~205! – including for this latter "...bat nurseries, viewed with a torch..." Perhaps part of the answer here might be to generate many thousands of trivial web pages to swamp the others... This may already have happened.

Many of the pages found listed the caves and some did the responsible management agency the courtesy of at least mentioning that there were management systems in place, there was no detail and no information on how to contact management. Even more distressingly, there was no attempt to convey even a minimal conservation message, the ASF Codes of Ethics, Safety and Minimal Impact Caving) or even how to contact a local caving club amongst pages contributed by speleological groups.

Search and rescue training has also introduced many people to the world of caves – again with costs and benefits.

PERMIT SYSTEMS

There are a number of permit systems operating across the State. Some are very rigorous, perhaps onerous, with reporting, administrative fees and insurance requirements attached. Others are far less so and may be designed to protect the manager as much as the cave. Regardless of the sophistication of the systems they will only operate well when there are close relationships between users and managers. This relationship must come with some understanding by managers of the needs and aspirations of users.

The Bungonia Recreational Activities Group is probably the best example of a simple and non-onerous system in the State. It operates on a self-regulatory, sign-in, sign-out principle that is probably only applicable in an area like Bungonia where comings and goings can be closely supervised. A similar comment applies to areas like Yarrangobilly, Wombeyan, Jenolan and Abercrombie where there are staff on the ground.

Where permit systems don't work well is where there has been entrenched, unaddressed use patterns or where management simply knows nothing about the caves, rarely visits the area or has little interaction with users.

CODES OF CONDUCT AND MINIMAL IMPACT

The Australian Speleological Federation Inc., the National Parks and Wildlife Service and the Jenolan Caves Reserve Trust have all developed or used various codes of conduct, minimal impact codes or information sheets dealing with specific issues such as carbon dioxide in caves at Bungonia or the detailed nature of some of the major caves at Yarrangobilly. The NPWS, with permission from ASF, prints and distributes the ASF Codes quite widely and they have been attached as

appendices to various cave and karst area management plans and to papers presented at conferences and in journals.

One must ask do they do any good? How does one evaluate such codes? Are they distributed to the right people – will they read them, understand them and put them into practice?

A fundamental issue here is how does one educate people about the values, needs and special sensitivities of caves whilst not at the same time encouraging ever increasing loads on our unprotected and unprotectable wild caves?

ADVENTURE CAVING AND COMMERCIAL OPERATORS

These activities (to which we should possibly add military and para-military training) are often seen by organised speleology to be the twin demons that lead to much cave degradation. In reality, because they can be regulated and reviewed with relative ease they may be far more “biddable” than many other groups. What cannot be denied is that all users (and managers)

contribute to the impacts on caves in a variety of ways, at a variety of scales and at a range of intensities.

WHERE TO FROM HERE?

The most difficult of all the questions raised in this discussion. We can concentrate on our whole-of-catchment, whole-of ecosystem approaches. We can make the regulations and permits more draconian – and increasingly harder to apply – and increase antagonism with users. At least uniformity across all agencies might assist.

Or perhaps we need to rethink the whole issue. Education might be part of the answer – but it often implies telling rather than involving people. Somehow, like many other resources that community is starting to recognise as finite (e.g.: soil, water, forests) this message must be conveyed and accepted by users.

As the Australian Speleological Federation Inc. says... *What we have now is all we will ever have...* It is time to move on from the old adage ...*Leave nothing but footprints...*

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