

TASMANIAN REPORT: FOCUS on WORLD HERITAGE

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Each State Party to this Convention recognizes that the duty of ensuring the identification, protection, conservation, presentation and transmission to future generations of the cultural and natural heritage referred to in [Articles 1](#) [cultural heritage] and [2](#) [natural heritage] and situated on its territory, belongs primarily to that State. It will do all it can to this end, to the utmost of its own resources and, where appropriate, with any international assistance and co-operation, in particular, financial, artistic, scientific and technical, which it may be able to obtain.

Convention Concerning the Protection of the World Cultural and Natural Heritage (UNESCO 1972)

Australia currently has 19 World Heritage properties. Of these, the Tasmanian Wilderness World Heritage Area (TWWHA) is one of several properties with strong associations with caves and karst. This is reflected in multiple references to karst-related values in the Statement of Outstanding Universal Value of the property. The Statement is currently under revision but historically emphasised the diversity and natural integrity of the karstlands, their biota and the presence within them of Pleistocene cave occupation and art sites. This article has two purposes: first, it provides an update on the implications for karst of a recent amendment to the TWWHA boundary; second, it draws attention to an initiative directed at improving the management of key elements of those values, namely the 2014 Cave Access Policy.

2013 TWWHA Boundary Amendment

In July 2013 the Federal Minister for the Environment gazetted an amendment to the TWWHA, following acceptance of a recommendation from Australia to the UNESCO World Heritage Committee. The amendment involves areas which are contiguous with the existing TWWHA and extend it primarily on the northern and eastern margins [INSERT MAP?]. The additions include a mix of existing reserves, new reserves and areas of State forest. Mt Field National Park, Hastings Caves State Reserve and parts of Mole Creek Karst National Park are included. The net result has been to increase the area of the TWWHA by more than 170,000 ha. It now comprises in the order of 1.6 million hectares or about 25% of the land area of Tasmania.

Australia's submission to UNESCO made numerous references to caves and karst, which were cited as an outstanding universal value against world heritage criterion vii (contain superlative natural phenomena or areas of exceptional natural beauty and aesthetic importance) and criterion viii (be outstanding examples representing major stages of the earth's history, including the record of life, significant ongoing geological processes in the development of landforms, or significant geomorphic or physiographic features). The submission included photographs of the forested karstlands in the upper Florentine Valley, anthodites in Shooting Star Cave and a spectacular image of the Forbidden City in Kubla Khan Cave by Ross Anderson.

Table 1 summarises the karst-related values of the extension areas and highlights some issues pertinent to their management.

The background to these events was the Tasmanian Forest Agreement (TFA), a three year negotiation between conservation groups, forestry industry bodies and the forestry workers union (CFMEU). This is the latest in a series of initiatives which have sought to resolve the debate between resources use and the environment which has dogged Tasmanian politics for decades. The TFA earmarked 504,000 ha of forest for formal protection in reserves and agreed that the TWWHA should be extended. A bill giving effect to the TFA was subsequently amended by Tasmania's upper house, delaying the enactment of some but not all of the new reserves until after October 2014 and making this contingent on accreditation of Forestry Tasmania by the Forest Stewardship Council.

The status of the TFA was further challenged by opposition to it from incoming State and Federal Liberal governments in early 2014. Both governments have been critical of the TFA. The Federal Abbott government attempted to reverse UNESCO's decision regarding the TWWHA by proposing that the areas in question should be excluded on the basis of prior disturbance. This proposal was rejected by the World Heritage Committee in early 2014. This has not deterred the State Liberal government from progressing plans to roll back aspects of the TFA with the stated aim of reinvigorating the Tasmanian forest industry. The cornerstone of its policy is a new forestry bill, which is currently being debated in the Tasmanian parliament. It is understood that the bill provides for the removal of 400,000 ha of native forest from reserves set up under the TFA.

Clearly, until the parliamentary process is completed it would be premature to draw firm conclusions regarding the land tenure status of the TWWHA boundary amendment areas and their future management arrangements.

2014 Cave Access Policy

A comprehensive approach to cave management requires consideration of environmental effects arising from both cave-based activities and catchment-based activities. Cave-based activities can be defined as all

Karst area	Karst values	Potential management issues	Present land classification
Nelson Valley/ Bubs Hill	Cavernous limestone karst mostly within the Franklin-Gordon Wild Rivers NP (existing TWWHA), addition of the Princess River CA brings entire karst catchment into TWWHA.	Very accessible karst area traversed by Lyell Highway; catchment recovering from extensive historic disturbance	Princess River Conservation Area
Mole Creek	Iconic limestone cave systems on State forest (e.g. Lynds Cave, Croesus Cave, Tailender Cave, Shooting Star Cave) and existing PWS reserves (e.g. King Solomons Cave, Kubla Khan Cave, Baldocks Cave, Herberts Pot).	Land uses on adjacent properties; transport and communications infrastructure; legacy of historic catchment disturbance; popular recreational and guided caving venue; show cave business enterprise	Mole Creek Karst National Park Great Western Tiers Conservation Area Mersey River Conservation Area Conservation Area (un-named) Permanent Timber Production Zone Land
Florentine Valley/Mt Field	Extensive limestone karst systems; notable additions to TWWHA include: Coles Creek system (caves and enigmatic karstic lakes); Junee Cave system (includes many individually deep and long caves); forested karst systems of the upper Florentine Valley	Former limestone and other quarries; former logging coupes; roads and other infrastructure; popular recreational caving venue	Florentine River Regional Reserve Humboldt Ridge Regional Reserve Franklin-Gordon Wild Rivers National Park Lady Binney Regional Reserve Mt Field National Park Junee Cave State Reserve
Kallista Creek	Dolomite karst (formerly State forest)	Roads and gravel pits	Styx River Regional Reserve
Styx River	Dolomite karst (formerly State forest)	Roads and gravel pits	Styx River Regional Reserve
Mt Weld	Dolomite karst (mostly already TWWHA within Southwest NP); additions bring entire karst catchment into TWWHA	Walking tracks; roads and gravel pits	Southwest National Park
Eddy Creek	Unusual marbled dolomite karst	Dolomite quarry proposed within non-TWWHA enclave	Weld River Regional Reserve
Hustling Creek (Riveaux)	Cavernous limestone karst with caves of Aboriginal cultural significance	Former forestry roads; culturally sensitive sites	Southwest National Park
Lake Picton	Near-pristine limestone karst system (discovered 2010)	Forest operations on karst in adjacent State forest	Picton River Conservation Area
Cook Creek	Probable limestone karst system (discovered 2010)	Former forestry roads	Picton River Conservation Area
Picton River	Riverine outcrops of spectacularly fossiliferous Ordovician limestone	Protection of fossils	Picton River Conservation Area

Table 1: List of karst areas included in the 2013 TWWHA extension, with notes on potential management considerations. NP: National Park; CA: Conservation Area; FR: Forest Reserve

CAVE CLASS	SHOW CAVES	WILD CAVES	RESTRICTED ACCESS CAVES			
Overview/ Description	Caves designated for commercial use with areas developed specifically for guided tours utilising formed pathways, artificial lighting and other infrastructure. These caves are available for general public access in the context of formal tours supervised by guides. Show caves may contain undeveloped areas zoned for purposes other than tourism.	Caves suitable for visitation by caving parties across a spectrum of skills and experience levels, in general where no formal restrictions apply to access. These caves generally contain minimal infrastructure to support public access. Selected Wild Caves are available for supervised 'wild caving' activities; others are considered suitable only for trips by experienced Australian Speleological Federation cavers or equivalent (See Appendix 4 for clarification of equivalent). These caves may include highly sensitive passages that are designated as Limited Access or Special Management Zones.	Caves where access is restricted. Caves may be declared as a Restricted Area within the meaning of the National Parks and Reserves Management Act 2002 or as having Limited Access under Regulation 17 of the National Parks and Reserved Land Regulations 2009. They include highly sensitive caves that include frequent and or outstanding sensitive component features. Access to these caves requires advanced caving skills to navigate through highly sensitive areas without causing unacceptable environmental impacts. Where open for recreational access, restricted access caves are available for trips by experienced cavers who are full members of Australian Speleological Federation or equivalent, subject to site-specific conditions to protect cave environments.			
ACCESS ZONES	Show Cave Zone	General Access Zone	Experienced Leader Access Zone	Self-reliant Zone	Limited Access Zone	Special Management Zone
Statement of intent	To protect cave values and showcase outstanding underground scenery in a safe and controlled setting	To protect cave values and provide opportunities for introductory caving experiences in largely natural settings by parties who may lack prior caving experience	To protect cave values and provide opportunities for more extended caving experiences in largely natural settings by parties supervised by experienced cave leaders	To protect cave values and provide opportunities for caving experiences requiring an advanced level of technical caving competence by all participants	To protect cave values and provide opportunities for caving experiences requiring an advanced level of technical caving competence by all participants, at very sensitive sites where access is formally restricted	To protect cave values at sites which are considered too sensitive for recreational caving activities
Relevant cave classes	Show Caves	Wild Caves	Wild Caves Show Cave	Wild Caves	Show Caves Wild Caves Restricted Access Caves	Show Caves Wild Caves Restricted Access Caves
Principal user group	General public - inexperienced cavers	For general public with limited or no caving experience	General public seeking a guided 'wild caving' experience supervised by Experienced Leaders.	Experienced cavers who are full members of Australian Speleological Federation or equivalent	Experienced cavers who are full members of Australian Speleological Federation or equivalent	Restricted access for management or scientific purposes only.
Permit/ Authority requirements	Yes (Entry Fee)	No. Bookings to access some caves may be required	Bookings to access some caves may be required	Full ASF membership or equivalent (no authority required)	Standard Restricted Access Cave Authority required. Bookings to access some caves may be required	Authority may be issued for scientific or management purposes only.

Table 2: Key elements of the Tasmanian Cave Access Zoning System (2014 Cave Access Policy).

activities involving people entering caves, including but not restricted to recreational caving, scientific research, commercial cave tours, search and rescue events, and so forth. These activities are distinct from catchment-based activities, which relate to land use in the broad sense and do not involve entry to caves. Both classes of activity entail potential to compromise the natural integrity of caves. However, in reserved areas, cave-based activities are typically the more immediate threat, because the level of disturbance from catchment-based activities is often constrained by the land tenure. This is not universally true but provides a useful generalisation for highlighting the critical role of access policy in managing caves on reserved land. This is especially pertinent in the TWWHA, where the catchment areas of the majority of caves are located inside the TWWHA and managed for conservation. Furthermore, although cave access policy is not itself a comprehensive basis for managing cave-based activities, it is the fundamental starting point without which all other initiatives are unlikely to be effective.

Historically, the Tasmanian Parks and Wildlife Service (PWS) has regulated access to relatively few wild caves. Most of those subject to access restrictions have been referred to as Limited Access Caves or Restricted Access Caves. Members of caving clubs affiliated with the Australian Speleological Federation (ASF) are allowed access to these caves, subject to certain conditions specified in a standard form of permit (Figure 1). While other members of the public are disallowed access to Restricted/Limited Access Caves, in theory they had open access to all other wild caves. In practice, cave-based activities by non-ASF cavers have devolved onto a relatively small pool of ‘unlimited access caves’.

The Restricted/Limited Access Caves system first came into effect in May 1983, when an initial pool of 12 caves was identified as needing management. Various forms of



Physical controls on cave access are a tool for promoting compliance with cave access policy, where this cannot be achieved by other measures. Unfortunately, cave gates do not always guarantee compliance. This stainless steel gate replaces a mild steel gate which was damaged during a break-in at Kubla Khan Cave, Mole Creek Karst National Park, in 2009.

Photo: Rolan Eberhard

access restrictions have since been applied to an additional circa 12 caves. The approach is premised on an assumption that that ASF cavers are aware of and proficient in minimal impact caving practices, as embodied in the relevant ASF codes of practice. There are clear weaknesses in this approach. For example, it embodies no mechanism for assessing actual competence in minimal impact caving practices, allocating responsibility for this to caving clubs, which are almost certainly quite variable in the standards and procedures they adopt for inducting new members or



The Tasmanian Cave Access Policy proscribes use of carbide lighting; however, a number of caves contain a legacy of historic carbide use in the form of dumps of spent carbide. This example from Kubla Khan Cave, one of about 20 identified in this cave alone, was relatively easy to clean.

Photos: Rolan Eberhard



Underground camping is a form of cave-based activity with potential for substantial impacts. This image shows the 1987 Czech Speleological Society expedition at Anne-A-Kananda. The expedition occupied the cave for 25 days. Source: Tasler, R., 1989; Tasmania 87 Expedition Report, Czech Speleological Society, Prague.

validating the responsible caving practices of existing members. This highlights the strongly self-regulatory basis of the approach. Alternative models involving more structured accreditation procedures may have merit but would require substantial changes to existing arrangements. The Tasmanian experience suggests that making access conditional on ASF membership has been instrumental in promoting conservation outcomes at all sites where it has been applied.

The need for a more sophisticated approach to managing access to wild caves has become increasingly obvious in recent years. First, the ASF caver/non-ASF caver dichotomy does not adequately describe the range of groups involved in cave-based activities or the relative scale of their impacts on the environment. Self-registration log books deployed at selected caves indicate that some of these are patronised by a diverse range of groups in numbers which are relatively large for Tasmanian caves. A few of these groups operate under the supervision of trained leaders and in accordance with documented procedures; others are less structured and quite informal. Catering for the diversity of groups

presently involved in cave-based activities is seen as consistent with community expectations and the 'presentation' objective of TWWHA management.

Second, and related to the above, evidence of substantial environmental impacts attributable to cave-based activities has emerged at a number of sites. Most of these sites are not classified as Limited Access Caves. In the majority of cases the impacts are due to the cumulative effect of numerous minor impacts accruing over time to produce more substantial impacts. Such impacts have progressed to an advanced stage in some cases. Evidence of substantial deliberate impacts, such as graffiti and vandalism of speleothems, is less common but not unknown. The caves in question are mostly not iconic sites, which in other circumstances, might be considered worthy of strongly restrictive access arrangements, as in the case of caves classified as Limited Access Caves. This suggested a need for an access policy incorporating options for promoting conservation objectives across a broader range of sites, including some of the most popular recreational caves in the State.

The 2014 Cave Access Policy was developed by a PWS working group advised by the Resource Management and Conservation Division (both are part of the Department of Primary Industries, Parks, Water and Environment). The form of the final 23 page document, which provides both contextual information and prescriptive content, incorporated the results of an external consultation process.

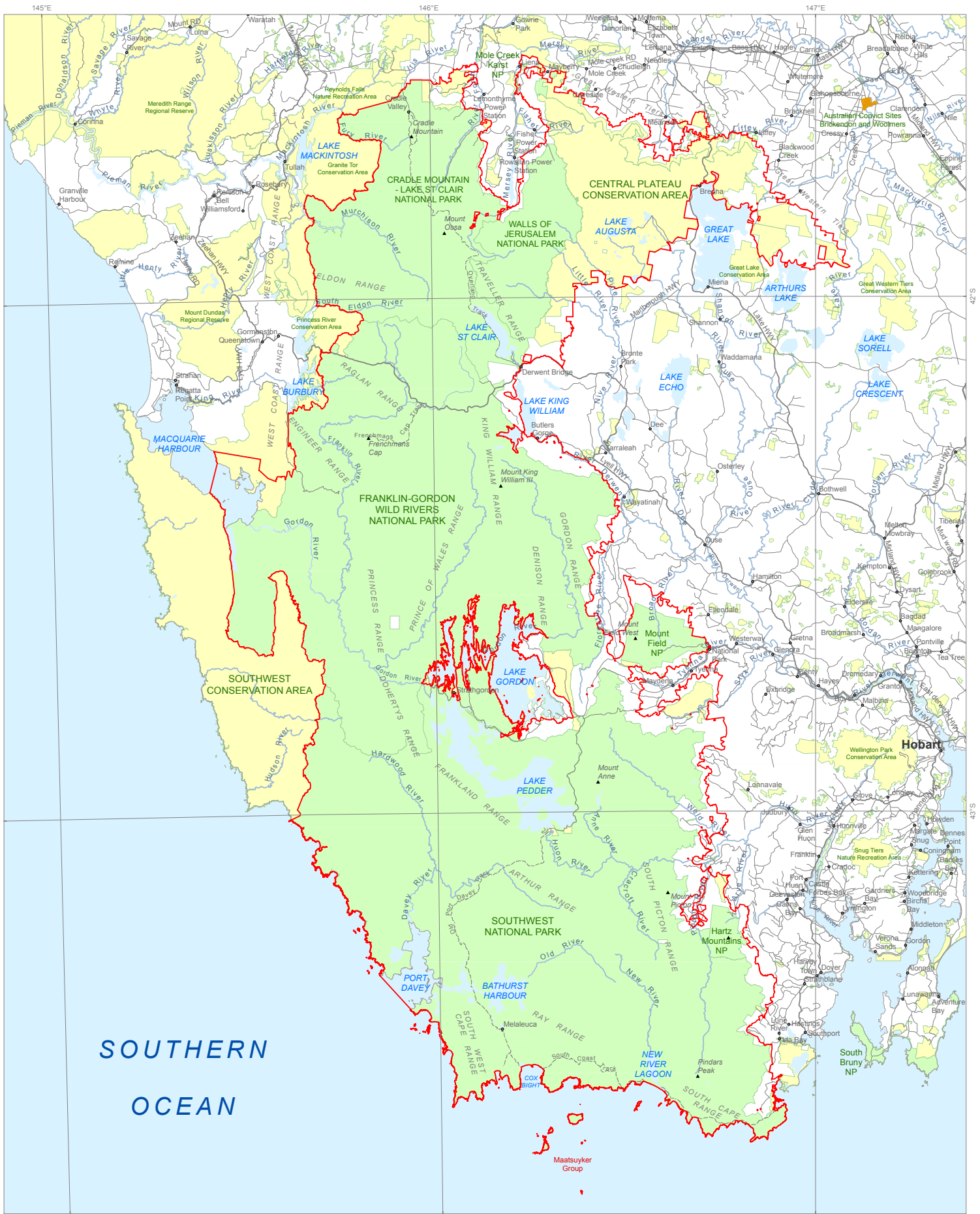
A key element of the Policy is the cave classification and zoning system. This component of the Policy is loosely based on an ASF cave classification model from the 1970s, cross-referenced to other elements of PWS management systems. The approach recognises three broad classes of cave – Show Caves, Wild Caves, Restricted Access Caves – these define the broad intent for managing whole caves (Table 2). Each class is further classified according to six access zones, some of which are applicable to certain cave classes. For example, a cave classified as a Show Cave may contain passage within any of the following access zones: Show Cave Zone, Experienced Leader Access Zone, Limited Access Zone, Special Management Zone. The zones provide a hierarchy of controls on access, ranging from open, facilitated access to more restrictive access regimes.

Appropriate user groups, entry protocol, maximum party sizes and daily limits and other protocol relevant to the respective zones are specified. ASF membership has been retained as a criterion for access to more sensitive zones; however, monopoly access for ASF members is avoided by establishing guidelines for assessing applications by non-ASF cavers.

It is anticipated that implementation of the Cave Access Policy will commence shortly. Potentially, this will involve regionally-based working groups tasked with identifying priority sites, collating relevant information and facilitating dialogue with interested parties. Application of the Policy is not confined to caves within the TWWHA. However, it has been strongly influenced by events within the TWWHA and recognition of a need for better tools to give effect to the ‘protection’ objective of World Heritage management, with particular reference to caves. The Policy can be downloaded from the PWS web site (www.parks.tas.gov.au).



*A spectacular image from Kubla Khan Cave. A portion of this image was used on the cover of ACKMA Journal No. 83
Photo: Ross Anderson*



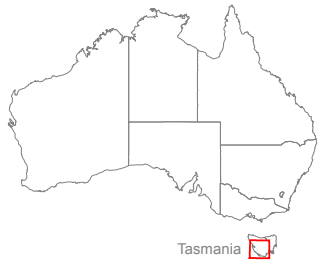
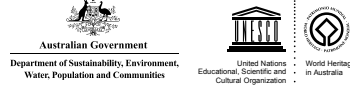
Tasmanian Wilderness World Heritage Area

Inscribed on the World Heritage List in 1982, extended in 1989, 2010, 2012, 2013.
 Total Area = 1,584,459 ha

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|---|---|
| Tasmanian Wilderness World Heritage Area | Road (major) |
| National Park | Road (minor) |
| Other Protected Area | Track |
| Other World Heritage Areas | + Railway |
| | River |

0 20 40 km
 Scale 1:750,000

Data Sources : © Commonwealth of Australia, World Heritage Areas.
 Projection : Transverse Mercator
 Datum : GDA 1994 MGA Zone 55
 Date: July 2013



Tasmania