

NRM SOUTH

The Southern Natural Resource Management Regional Committee

SOUTHERN REGIONAL NRM STRATEGY

MANAGING LANDSCAPES AND CULTURAL VALUES DISCUSSION PAPER

November 2003

NRM South has developed a series of Discussion Papers to get feedback from the community on natural resource management issues and options. Your feedback will inform the next step: development of a draft Southern NRM Strategy, expected to be released for consultation in April 2004.

Please send your comments on the Discussion Papers to:

Vanessa Elwell-Gavins
Coordinator, NRM South
C/o GPO Box 44
HOBART TAS 7001

or **Email:** nrmsouth@nht.tas.gov.au

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- Draft Landscape Strategy -Issues and Options Paper Huon Valley NRM Strategy and
- Derwent Catchment NRM Plan
- Northern and York Agricultural Districts Integrated NRM plan

LANDSCAPES AND CULTURAL VALUES: SUMMARY

This discussion paper deals with the broad range of issues concerning the Landscape and in particular the interface between cultural/social values and the natural environment. Landscape is a scale of study and understanding that goes beyond the paddock or the farm. A landscape includes the underlying geology and hydrogeology, landforms and soils, plants and animals, atmosphere and the natural, cultural and visual values associated with these attributes. Whilst it may often relate to catchment scale, it is not confined to this.

While evaluation of landscape is heavily subjective, it is evident that valued landscapes in the Southern region include:

- superb 'geoheritage' (sites of high geological value), from the rugged landforms of the Arthur's Ranges in the South West to Australia's longest and deepest caves systems in the Mt Anne area and Florentine Valley; from Australia's highest sea cliffs on the Tasman Peninsula to beautiful isthmuses on Bruny Island and coastal spits at Dolphin Sands. New River in the Tasmanian Wilderness World Heritage Area is one of Australia's only undeveloped catchments.
- the cultural heritage of Indigenous peoples with a wealth of sites from thousand-year old middens and hand stencils on rock faces to the broader perspective of the whole landscape and its patterning of vegetation being regarded as a heritage site due to the fire-stick farming of the Aboriginal people and their movements across it over tens of thousands of years.

The intersection between Aboriginal cultural heritage and NRM is expected to be a very important part of the Southern NRM Strategy. Because of its importance and the need for this to be driven by the Aboriginal community, this Discussion Paper does not include Aboriginal cultural heritage issues. A separate paper is being prepared for NRM South by the Office of Aboriginal Affairs in the Department of Premier and Cabinet in consultation with the Tasmanian Aboriginal community. The Aboriginal community will drive their consultations with NRM South and input into the Southern NRM Strategy on culturally significant NRM issues. NRM South is grateful for this important contribution to the NRM planning process.

Many of the comments made in the paper may be generally relevant to Aboriginal cultural heritage, however, but no claim is made here that this is so.

- the cultural heritage of Europeans, from the obvious sites like Port Arthur, Richmond or Oatlands, to often forgotten places marking our timber, agricultural and mining industries - the unique sheep and cattle fields of the Central Highlands, and the areas deep in the Southwest National Park once logged for Huon Pine.
- the more contemporary aesthetic values such as visual appeal and those giving us a sense of place. A landscape of those rugged mountains and sea cliffs, but also of the forested hills around Hobart and the patterned mosaic of farmland and forest in the valleys of the region. The coastal vistas and quiet rocky bays, the marine life, the watercourses of major rivers such as the Derwent and the Huon, and the whole natural experience of living in the region.

In managing Landscapes we need to consider the cultural aspects of the physical environment and the way we place "values" on that environment. Management then becomes a matter of protecting those aspects of the natural environment that people consider to be so important from an aesthetic and community/heritage perspective. A "sense of place" or belonging is one way of describing this. The total "landscape" then is an integrating mechanism for linking together all the natural features of the environment that people value.

To effectively manage and protect Landscape and Cultural values we must:

- Identify, understand and appreciate landscape values;
- Adopt a total ecosystem perspective and recognise the benefits of inter-connections between the natural components (flora, fauna, soils, water) and human use over time;
- Maintain and provide protection for:
 - Sensitive landscape features, such as cave systems, throughout the region
 - Soil resources, water resources, ecological habitat and other ecosystem functions
 - The rich variety of landscape types; and
 - Their natural, cultural and visual values.
- Encourage and promote sustainable landscape management in the social, economic and environmental interests of the Region;
- Develop and promote co-operative approaches between all levels of government, industry and community in the sustainable management of the landscape; and
- Co-ordinate and integrate existing processes and mechanisms for landscape management in the Region.

CURRENT SITUATION

Land and landforms

Geodiversity and Geoconservation

The Southern Region has a significant range of rock types representing virtually every geological period, from the oldest rocks which can be up to 1000 million years old in the south west to the relatively young basalts in the south east which are younger than 50 million years. There is also a significant array of landforms, which have formed in response to processes from coastal and marine action (South Arm) to riverine action (Derwent and Huon Rivers), karst processes (Hastings area), and glacial and periglacial action (Central Plateau, Mt Field and the Southern Ranges). Soils are also diverse due to the wide range of bedrock types on which they have formed, the dramatic climatic gradient, the range of parent material and variations in biological activity which influences soil development.

The Region contains a wide range of geological (hard rock) and geomorphological (landform) sites, which need to be considered in natural resource management. Some geological sites, for example Mt Wellington, are robust and do not need active management while others, like the karst around Hastings, and many of the sand dunes on the south east coast need careful management and protection. Other sensitive sites include fossil sites (Knocklofty fossil location), restricted geological outcrops such as those near Dover (Regatta Point/Lymington Dykes), wetlands (south west peatlands) and riverine environments.

Important karst areas occur near Hastings, in the Weld River valley, and in the Juneeflorentine area. The latter includes a more extensive group of (carbonate) rocks which outcrop in the Gordon River area and as far south as the Cracroft Valley. There is also a restricted area of karst on Maria Island, which also occurs occasionally in other parts of the south east. Some of these karst areas contain highly significant extinct megafauna and Thylacine fossils. They also include the longest cave system in Australia with massive chambers, underground rivers and spectacular glow worm displays and cave decorations. Karst in the Mt Anne area shares the deepest cave in Australia with caves in the Florentine Valley. In addition fascinating wilderness karst occurs in the Vanishing Falls area.

The south has a wide range of coastal landforms including some of the best developed spits (Seven Mile Beach and Dolphin Sands) and isthmuses (The Neck on Bruny Island) in the State. The area contains a range of other dune types including transgressive dunes (Friendly Beaches), bayhead dunes (South Arm and Tasman Peninsula), cliff-top dunes (Cape Deslacs), climbing/falling dunes (Cape Deslacs). The south east contains some of the most spectacular drowned coastline in the State producing extensive bays and estuaries from Recherche Bay to the Tasman Peninsula.

Rivers in the south vary greatly depending on their evolution, the climate (rainfall) and topography/geology. Headwater streams in the high glaciated country of the Central Plateau through to Mt Field and the Southern Ranges occur in areas which can be extremely rugged with steep gorges. Midlands rivers flow through broad valleys with occasional steep sections but have a very different character to those in the west of the region. Streams flowing off the mountains from Mt Wellington south are steep and fast flowing typically loaded with coarse material, which is quite natural. In contrast those flowing towards the drier east coast are flashier in their response to heavy rainfall events and have unstable bedloads and banks.

Landscape level natural features –non-geological.

The landscape provides considerable ecosystem services as well as having an integrity in its own right. Landscapes unmodified by contemporary human activities have contributed to this for thousands of years, and include functions such as microclimatic ones, protection of water resources, large scale ecological habitat functions, soil formation and retention, nutrient cycling, resilience to and recovery from unpredictable events. Many of these services continue with some levels of modification and additional ones such as providing pollution breakdown and absorption services come into importance. Some functionality however decreases or ceases with modifications such as clearance for agriculture/forestry and/or change in species compositions under monocultures.

Cultural Heritage

Cultural heritage sites occur throughout the region, often in areas where current resource extraction or utilisation can impact on the protection of heritage values. Because cultural heritage is often tied to areas of historical natural resources the maintenance of these resources around the heritage sites is important. So for example the cutting fields of the upper Huon are surrounded by National Park forest that can tell the story of the resources used in bygone years.

European heritage places are more familiar to the majority of Tasmanians than Aboriginal heritage sites, although the stories arising from many particular places are often obscure. Historic places mark the many important events, activities and trends which shaped the very recent history of the State, including:

- convict sites - with high profile places such as Port Arthur and the Coal Mines of Tasman Peninsula nestled in a landscape of forest and probation stations, for example those of the Midlands and Derwent Valley;
- our terrestrial and sea-based maritime heritage, extraordinary examples of Victorian light stations, and a range of wharves, jetties and ports;
- places marking our timber, agricultural and mining industries - the unique sheep and cattle runs of the Central Highlands, and the Huon cutting fields deep in the Southwest National Park;
- our rich recreational and powerful artefacts of our natural heritage pursuits –our shack culture, World Heritage reserves and network of threatened species habitats.

Cultural landscapes are also very pronounced in Tasmania. The pattern of plains and forests are in many cases the result of fire-stick farming by Aborigines. More recent cultural landscapes figure prominently in the appreciation of Tasmania's heritage. Of particular historic interest are our convict and Georgian landscapes, but many other types of historic landscapes characterise the State's heritage, ranging from mining landscapes on the West Coast to our recreational landscapes formed around shack settlements.

VALUES

The immediacy of our response to the landscape indicates its primacy as a significant factor in our well-being. However, whilst we may be aware of influences such as pleasing natural or rural landscape, effects from degraded landscapes are harder to measure. The social benefits

of having a healthy, diverse rural landscape are beginning to be recognised by researchers in the field of community health. Rapidly changing landscapes can cause considerable social anxiety and concern, be it from rural tree decline, clearance of native vegetation, change in land use, change in settlement patterns or destruction of culturally significant areas and cultural landscapes.

Our ‘sense of place’ is likely to be formed from our response to landscape and cultural factors, and whilst such a response is likely to be diverse and multifaceted, there are sufficient commonalities that can be ascribed as making up the significant values.

Landscape level factors also play important roles in non-human functions, though we benefit considerably from them. These include the ecosystem services. There are also many values that are intrinsic in the landscape, that derive from landforms and geology and from the ecosystems.

Landscape Values of the Region include:

Aboriginal Heritage.

This will be dealt with in a separate paper.

European Heritage

- Again a rich and diverse range of heritage sites that are pertinent to NRM considerations, including the Huon Cutting Fields, heritage shacks in Mt Field National Park, Port Arthur , the Coal Mines. A full listing is available on the Heritage website. Note that Cultural Landscapes are now considered by the Heritage Council as needing protection.

Geoconservation

- 360 sites of geo-significance, including:
 - The highest sea cliff in Australia
 - Important Karst systems including Australia’s longest and deepest caves
 - Areas of highly significant extinct ‘megafauna’ (giant animals) and Thylacine fossils
 - One of the remaining undeveloped catchments in Australia: New River
 - Examples of nationally and internationally significant geo-sites include:

<i>SITE</i>	<i>LEVEL</i>	<i>THREATS</i>
• Regatta Point/Lymington alkaline dykes	Aus	Collecting
• Apsley volcanic necks	Aus	Robust
• Remarkable Caves	Aus	Robust
• Tessellated Pavement and Tasman Arch	World/Aus	Robust
• Fossil Cliffs	World	Impacted – quarrying
• D’Entrecasteaux Karst	World	Impacted – quarrying
• Lake St Clair moraines and lake	World/Aus	Moraines impacted
• Central Plateau glacial area	World	Robust
• Mount Knocklofty fossil site	Aus	Vulnerable – collecting

- The Tasmanian Wilderness World Heritage area was listed as a World Heritage Area in part because of its geoheritage value:
 - It represents a major phase of the world's evolutionary history due to the large tracts of rainforests which originated on the ancient supercontinent of Gondwana,

and the rugged mountains and lakes which were formed by the actions of glaciers during recent Ice Ages;

- It contains outstanding examples of significant ongoing geological and biological processes in the ecological interactions between buttongrass plains, fire, rainforest and tall-eucalypt forests;
- It contains superlative natural phenomena and scenes of great beauty, including Australia's deepest and longest caves; the tallest hardwood trees in the world; spectacular coastlines, mountains, lakes and gorges; and scenic vistas over buttongrass plains, ranges and forests. The wilderness values of the area are spectacular.

Visual Amenity

- Particularly valued around the settlement areas, considerable importance is placed on the skyline bushland around Hobart, the Forested hills of the Huon Valley and the coastal vegetation throughout the region. In the more remoter areas of the region, such as towards Recherche Bay in the south, and in the forests of the western areas there is value placed on the intactness of the vegetation cover and it's relative wildness.

Sense of place

The landscape plays an important part in contemporary culture in our sense of place and in our health. This is only recently being recognised by researchers and yet has affected human settlement and standing for years and is something most people would innately recognise. The Region has valleys of striking beauty and richness, with healthy, diverse rural landscapes and areas of wildness drawing people to settle there and providing significant visual amenity. The strength of peoples' attachment to the Region's landscape stems from the significant interrelationship between aesthetic values, community values, landscape values and spiritual values. Areas where the landscape could be regarded as being in 'systems decline', such as in heavy dieback or rural tree decline areas, are having a profound effect on inhabitants' health and wellbeing. Other areas where the landscape is being modified at a rapid rate through change of landuse (for example, plantation establishment, clearance of native vegetation, destruction of cultural heritage, increased population pressures) are also causing considerable anxiety amongst some inhabitants, leading to a loss of wellbeing and sense of place. One area where there is some recognition of these cultural values is in Aboriginal Heritage, which is outside the scope of this paper.

Additional examples of values that pertain to sense of place include the pattern of land use that has evolved since European settlement, including:

- the mosaic of farmland and forested hills and remnants in the Midlands and Derwent Valley
- the hop fields around Bushy Park and
- the apple orchards of the Huon.

Public Health /Ecosystem Services

- The landscape provides many public health benefits including 'ecosystem services' such as:
 - Protection of water resources
 - Soil formation & protection
 - Nutrient storage & cycling
 - Pollution breakdown & absorption
 - Contribution to climate stability

- Maintenance of ecosystems
 - Recovery from unpredictable events
- The health aspects of the aesthetic of the landscape is now being recognised – see sense of place above.

CURRENT CONDITION

Land and landforms

Geodiversity and Geoconservation

No comprehensive assessment of condition has been conducted of Tasmania's geodiversity, although some information on the condition of specific sites can be found on the Tasmanian Geoconservation Database.

The condition of karst areas, riverine environments and coastal locations varies widely from virtually untouched areas in the south to highly altered locations in the south east.

General data on individual karst systems and their statewide context is available from the Atlas of Tasmanian Karst (Kiernan 1995). Some reports are also available on the issues associated with karst in the Marble Hill area and the Florentine Valley. Reports on inventories of sites of Geoconservation significance on State Forest are available.

Some geomorphological data on rivers is now available through work conducted for Rivercare plans, including condition assessments. They are available for the Coal River, Lower Derwent River, North West Bay River, Snug River, Nicholls Rivulet and the Russell River. AUSRIVAS data also exists for some rivers in the region.

Collecting has heavily impacted some geological sites.

Landscape level natural features –non-geological.

Little data is available on the condition of the landscape assets with reference to the non-geological features, in part because these values are poorly understood. Land and Water Australia are doing studies on ecological thresholds for vegetation at the landscape scale (research area based in Southern Qld.) and Landscape Level Thresholds for Conservation of Biodiversity (Vegetation) and other researchers have looked at integrating landscape ecology into natural resource management. A two year study currently underway in NSW aims to utilise modelling techniques to predict how changes in landscape policy, vegetation disturbance and restoration will affect the biodiversity of a region. However ecological relationships are complex, often vary regionally and may be different for areas where predominant land uses vary.

One indicator that can give a reasonable guide to the condition of landscapes is the presence and amount of native vegetation. Whilst areas in the south of the region have considerable native vegetation cover, the Derwent and Midlands areas have been significantly modified. (see Managing Native Vegetation and Fauna Discussion Paper)

Cultural Heritage

Despite a growing recognition of the value of Aboriginal and historic heritage assets, lack of diligence, lack of care and lack of information are wearing away the rich legacy

of at least thirty-five millennia of occupation of Tasmania. Whether on a local or state scale, everyone that frequents the cities, towns, countryside and bush of Tasmanian can point to places where open space, river banks, houses, stores, tracks, forests, sheds, hedges and the like have now disappeared. The Midlands has witnessed the loss of innumerable farm buildings and traces of past farming practices. The majority of Aboriginal and historic heritage resources are not permanent: our reserves, set up to protect the environment, are home to slowly dissipating huts, mines, and other signs of earlier human occupation.

Contemporary society/culture

Inter-relationships between biodiversity, endemism, sense of place and public health is the subject of at least one study in Tasmania in recent years. Whilst sociological data is available through health authorities, the compilation of these and their relevance to Natural Resource Management has not been undertaken. Some studies have been conducted as to farmers perception of remnants in the region. Changes in land use are recorded to some degree. The south of Tasmania has seen a decline in sheep and dairy cattle over the past ten years, and a decline in the area of land in use for agriculture of 18,820 ha or 16% over this period. How people feel about this is another matter. Sub-regional NRM plans often miss this aspect because researchers fail to ask questions of feeling in their research. The importance of visual amenity is typified by the contention surrounding the retention of skyline bushland in Hobart. Recent developments at Tolmans Hill and proposed developments on Mt Nelson have caused many residents to object to the loss of this value.

MANAGING LANDSCAPES AND CULTURAL VALUES: ISSUES AND CHALLENGES

Land and landforms

Geodiversity and Geoconservation

Disturbance or removal of most rock or landform features is normally permanent unless we are willing to look at sustainability over millions of years, and even then, this does not allow for the re-creation of features that may have formed under particular geological or climatological conditions. In the geological world, in contrast to biological world, features are typically one off, or develop so slowly that degradation is permanent and destruction, or extinction, of an important site can occur with the passing of one bulldozer blade, the removal of specimens, by collectors for example, or inappropriate land management.

Sites which are most vulnerable in the Southern Region include, cave and karst sites (and their catchments including underground catchments), coastal sites and riverine sites. Some threats to karst areas include disturbance in catchments and impacts from poor water quality. In the southern region forestry and quarrying have been some of the potential threats.

Tourism developments in karst areas is also a potential threat.

Rivers have been changed by land clearing across the region but can also have their processes altered by river regulation. This may come in the form of cumulative effects of dam building in catchments or on specific river systems. Some rivers erode quite naturally, for example some of those on the east coast, whereas others erode as a consequence of catchment disturbance. Rivers can also suffer from sediment extraction as has occurred on the lower reaches of the North West River.

Disturbance of coastal landforms in one area can result in massive change in an adjacent location (eg. marram grass planting along parts of the east coast) and so disturbance of coastal landforms is generally best avoided. Changes to coastal processes in the region have often resulted from interference with natural processes and once these have started it is difficult not to be locked into works.

Climate change effects on coastal environments may cause significant issues (see Atmosphere discussion paper).

Even hard rock sites have been impacted as the navy once used the spectacular basalt columns at Cape Pillar for target practice, whilst the oldest marsupial fossil site in Australia was covered by “reclaimed” playing fields in Hobart. This has impacted on the natural integrity of these significant sites. Geoscientific collecting near Cygnet has impacted on coastal exposures of a relatively rare rock type in Tasmania, whilst illegal collecting of fossils and cave decorations has impacted on important karst features. Landforms and the globally unique Lake Pedder were flooded in the 1970’s resulting in the degradation of geodiversity in the region, while impacts from quarrying around Marble Hill at Lune River were significant until quarrying was recently halted.

A general indicator for the condition of sites of geoconservation significance and particularly karst, coastal and riverine sites is the condition of the natural vegetation. If it is intact then these sites are likely to be in good condition. Fire can be a threat to soil

processes and soil development and particularly to peat soils. Horizons which are thousands of years old can be destroyed by one fire.

Landscape level natural features –non-geological.

Inadequate catchment management planning is a key issue in the Region that affects landscape values, and vegetation retention is a key aspect of this. Understanding what the thresholds for particular ecosystems are is also an issue. Clearance of vegetation that exceeds thresholds for ecosystem services, or is likely to exceed such thresholds were they better understood, is not being adequately considered. There are also significant issues with the land management coordination across land tenures with regards to this.

Summary of issues relating to Natural Landscapes

- Damage to Karst systems, including underground catchments, from forestry, quarrying and tourism developments.
- Damage from collection of geological material.
- Sediment extraction from Rivers
- Fire effects on fragile peat soils
- Inadequate assessment and protection of landscape values in catchment planning
- Poorly understood ecological thresholds (ie poor understanding of the level of change different ecosystems can suffer without loss of the qualities which define them)
- Poor land management coordination across land tenures

QUESTION

Do you agree these are the main issues relating to Natural Landscapes?

What other issues would you like to suggest?

Cultural Heritage

Cultural heritage issues as relevant to Natural Resource Management include:

- a) The continued degradation of cultural heritage places and values over time resulting in:
 - The need to identify and register sites (noting that in some cases ‘sites’ may be at the landscape scale)
 - Need to protect sites from inappropriate natural resource management
- b) Changing community expectations about cultural heritage management resulting in:
 - A need to better understand the growing attachment of community groups and individuals to cultural heritage, including to places of local heritage significance. Example being the historic sites and landscape at Recherche Bay.
 - A need to include the voice of the community in management decisions

- c) Political pressures and choices resulting from changes to Federal government legislation and increasing development pressures from commercial interests resulting in:
- The increasing political importance of heritage tourism, with tourism driving political decisions on conservation issues
 - A need to forge local, state, national, and international partnerships with heritage tourism stakeholders
- d) Greater competition for limited funds and resources both within the community at large and within Government.
- e) Changing demographics and settlement patterns, resulting in a rural-urban drift and ‘sea-change’ pressures on coastal environments.

Contemporary Culture

Adequately defining the aspects of landscape that are important to people’s sense of place and then developing systems that can quantifiably and qualitatively assess changes in these parameters is a key issue. Some work has been done on this, including work on ‘inspirational landscapes’ and looking at farmers perceptions towards remnants. Going the next step and then protecting these values for future generations is critical.

In areas where the landscape offers additional values of remoteness and are significantly undisturbed by recent human activities, such as the World Heritage Area or forested areas on its eastern perimeter, tourism has potentially significant impacts depending on its level of invasiveness to the landscape.

Summary of issues relating to Cultural Values

- The continued degradation of cultural heritage places and values
- Tourism development push resulting in possible conflict with conservation of values
- Changing community expectations about cultural heritage management
- Greater competition for limited funds and resources
- Changing demographics putting pressure on coastal environments
- Inadequate understanding of communities ‘sense of place’, the values of landscapes to health and well being and measure to protect these values

QUESTIONS

Do you agree these are the main issues relating to Cultural Heritage?

What other Cultural Heritage issues would you like to suggest?

CURRENT RESPONSES & POLICIES

The legislative and policy response to landscapes and cultural values is complex, as with other areas of NRM. Relevant NRM legislation and policies are summarised in the

Discussion Paper on *Strategic Framework*, which is available from the NRM South office (Tel: 6231 9575; Email: Sonja.VanHoof@nht.tas.gov.au) or from the NRM South Website (www.nrmtas.com.au) and follow the links to the Southern Region, *What's New* and the *Discussion Papers*).

Key Tasmanian, Australian and international legislation and policy (excluding those targeting Aboriginal heritage) includes:

- *Mineral Resources Development Act 1995* (which protects fossils)
- Forest Practices Code
- State Coastal Policy
- Reserve Management Code of Practice
- *Historic Cultural Heritage Act 1995* (under review)
- *the World Heritage Properties Conservation Act 1993*
- *Australian Heritage Council Act 2002*
- *Environment and Heritage Legislation Amendment Act 2002*
- *Environment Protection and Biodiversity Conservation Act 1999*
- planning scheme provisions in the *Land Use and Planning Approvals Act 1993*
- *Environmental Management and Pollution Control Act 1994*
- *National Parks and Reserves Management Act 2002*, particularly the Management Plans, also impact on the management of a large suite of cultural heritage assets
- *The ICOMOS Guidelines for the Conservation of Places of Cultural Significance* (The Burra Charter),
- *UNESCO Convention on the Protection of Underwater Cultural Heritage*,

Land and landforms:

Geodiversity and Geoconservation

Legislation exists to protect geological or geomorphological features on reserved land and authority is required to collect from any other crown land but this is generally not well understood. There is no dedicated legislation to cover the protection of geological or geomorphological features on private land other than protection provided to fossils and speleothems under the *Mineral Resources Development Act 1995*. Some sites are sufficiently robust that they do not require further protection while others are perhaps best dealt with through voluntary management agreements with landholders. Partnership agreements between the State Government and Councils might be used to pursue options for the protection of sites of geoconservation significance.

Detailed work on karst and karst hydrology has been carried out around Marble Hill. There are a number of general karst related issues in the region including:

- Karst management in reserves and forestry areas
- tourism developments in karst areas

Landscape level natural features –non-geological.

Current response to landscape level issues vary across land tenure, and this itself is an issue. On State Forest the district management plans provides for the strategic management of State forests for wood production and other uses including the conservation of natural values and recreation. Similarly, the PWS considers landscape

level impacts and those of adjacent land use activities through such documents as the World Heritage Area Management Plan (WHAMP).

In contrast, there is no process for the strategic regional planning of vegetation clearance on private land per se. In the case of Private Timber Reserves, each operation is considered on a site-by-site basis according to the Forest Practices Code and the Forest Practices Plan, but not on a regional basis which takes into account adjacent land uses or catchment wide impacts. Furthermore, while the Forest Practices Board monitors and reports on harvesting and reforestation activity across tenures in relation to the maintenance of the Permanent Forest Estate, they do not currently have the capacity to assess the area of each town water supply catchment harvested on an annual basis, which under the Forest Practices Code cannot exceed 5%. In some town water supply catchments, this means that only one coupe can be harvested for commercial forestry per year, irrespective of tenure.

Cultural Heritage

A range of legislation is relevant to the management of cultural heritage and should guide natural resources users in protecting these assets.

The *Heritage Review 2000* report to Government has established some new framework and policy initiatives relevant to historic heritage assets and NRM, including:

- Greater coordination of Government Agency heritage place management, with a focus on asset management responsibilities.
- A number of planning scheme initiatives to create synchronisation with planning provisions, enhance the level of advice given to owners of heritage properties, and enhance protection of landscapes and streetscapes.
- An audit of heritage tourism places and development of demonstration models for heritage tourism.

STRATEGIC FRAMEWORK: OUTCOMES, MATTERS FOR TARGET, SUGGESTED TARGETS AND POSSIBLE INDICATOR

Managing Landscape and Cultural Values effectively will contribute to achievement of the following proposed Southern regional goals:

2. ***maintain and improve the condition of the Southern region's natural assets***
3. ***contribute to the development of sustainable communities***
4. ***assist in the development of a sustainable and balanced approach to economic development***

It will also assist in the delivery of five agreed National Outcomes (see *Introduction to NRM South Discussion Papers*).

All of the Matters for Target and recommended indicators agreed nationally have relevance to managing the Landscape And Cultural Values in the region. These are listed in the Discussion Paper on *Strategic Framework*.

Targets

The National Framework requires regional NRM strategies to set ‘aspirational targets’. These are ‘stretch’ targets, to be achieved over the long term, for example, 50 years.

Relevant documents which provide some basis for target setting include Tasmania *Together*, recently produced national park management plans, Tasmanian Industry Development Plans include strategic objectives for resource management and Forestry and Tourism plans.

Long term target: Landscape and Cultural Values

What (if any) specific target(s) should we set for 2050?

Medium term target: Landscape and Cultural Values

What (if any) specific medium term (10-20 years) targets should we set for landscape and cultural values

LANDSCAPES AND CULTURAL VALUES: ISSUES AND POSSIBLE MANAGEMENT ACTIONS

How important do you think each of these issues are? For each proposed Management Action, please tell us whether you think they are:

- Urgent? Not urgent?
- Important? Not important?

Please let us know if you disagree with any of the proposed Management Actions.

ISSUE	POSSIBLE MANAGEMENT ACTIONS: OPTIONS	Do you agree with this action? Yes/No	Is this Action Urgent?	Is this Action Important?
Information Gaps				
More systematic and comprehensive assessments of sites of Geoconservation significance.	Conduct systematic assessments for sites of geoconservation significance in the Southern Region			
	Assess the condition of sites already listed on the Tasmanian Geoconservation Database.			
Greater understanding of the condition of river systems	Continue the work on stream (geomorphological) characterisation and complete inventories of streams with the aim of producing an “Atlas of Tasmanian Streams”.			
Incomplete register of Heritage sites	Complete the Tasmanian Heritage Register with all sites relevant for NRM			
Lack of understanding of landscape and ecosystem services and functions	Encourage research into the Ecological Thresholds for a range of relevant regional ecosystems			
	Encourage studies on the value of landscape on peoples’			

ISSUE	POSSIBLE MANAGEMENT ACTIONS: OPTIONS	Do you agree with this action? Yes/No	Is this Action Urgent?	Is this Action Important?
	health and sense of place.			
	In partnership with industry, government and research institutions, conduct research into landscape and ecosystem services as relevant and specific to the region			
	Develop indicators for landscape and ecosystem services and functions and set appropriate, measurable targets			
Lack of monitoring of land use and land use changes on catchment scale	In partnership with industry, local and state government, develop integrated GIS systems for location of Private Timber Reserves, land with Forest Practices Plans (including current status of the Plan), registered organic properties & land under conservation management agreements (eg Covenants, 10-year management agreements, Land for Wildlife status)			
Little understanding of the impacts of Climate Change on Landscape features	Assess the impact of sea level rise in the region and particularly on coasts around the south east and Channel areas. (This can build on the work conducted by Sharples for the Southern Councils).			
Operational environment				
Improve Heritage considerations in policy and legislation	Provide expert heritage advice and heritage project support services for PWS and other Government agencies as relevant for NRM.			
Lack of data-sharing across industry, state government, and local government	Encourage greater data-sharing, particularly in relation to major industries such as forestry, aquaculture and agriculture, to facilitate better coordinated management of landscape-scale values			
Increasing development pressures from commercial interests on areas of high landscape or cultural value.	Ensure Tourism development pressures do not compromise conservation objectives.			
Planning and Assessment				

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Poor considerations of landscape, Geoconservation, cultural and natural values in private property management,	Adopt integrated property plans which also adequately address landscape, Geoconservation cultural and natural values			
Loss of Landscape values by inappropriate development	Identify and locate areas with high landscape values and/or areas of high environmental sensitivity to which could be under pressure from development or resource utilisation including from tourism, residential development, quarrying, agricultural and forestry development.			
	Ensure 'urban sprawl' is minimised by encouraging clustering of residential developments in medium density and restricting subdivision of rural land.			
	Develop a system for taking the visual impacts of clearing into account as part of the development approval process. Such a system also needs to take other aspects of landscape management into account, including cultural heritage, tourism, public recreation, residential amenity etc. This system could combine the management system used for forestry with other systems or methodologies.			
On-ground Management				
“	Adopt protective management measures such as fencing of sensitive sites.			
“	Facilitate adoption of voluntary conservation covenants over land with Geoconservation values.			

ISSUE	POSSIBLE MANAGEMENT ACTIONS: OPTIONS	Do you agree with this action? Yes/No	Is this Action Urgent?	Is this Action Important?
Communication & capacity building				
Improve broad-scale community understanding of natural and cultural heritage values and management techniques for their protection	Support the development of a coordinated approach to the promotion of Tasmania's natural & cultural heritage.			
	Provide expert advice to local councils on the management and conservation of heritage properties and valued landscapes			
	Promote and support best-practice nature-based tourism			
	Promote public education and awareness of geodiversity and the impacts of fossicking			
Incentives				
Prevent inappropriate clearance of vegetation on private land that provides ecosystem and landscape services.	Introduce financial incentives such as stewardship payments to protect key areas having critical ecosystem and landscape services and functions			
Regulatory Arrangements				
Lack of mechanisms to assess and protect landscape level values dealing with ecosystem function, visual amenity, sense of place and lifestyle	Recommend a review of policies, legislation and codes of practice to establish the best means for considering and protecting landscape-level and catchment values			
	Local government to develop mechanisms to consider and protect landscape level and catchment values for inclusion into planning schemes.			
Inappropriate residential	Encourage compliance with the State Coastal Policy and			

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development along coastal zone	ensure mechanisms for development approvals are consistent with policies and legislation			
Monitoring & evaluation				
Improve monitoring of catchment level changes in the cultural and natural landscape	Encourage improvements of the Forest Practices Board's capacity to monitor catchment-level vegetation parameters across all tenures such as annual harvesting plans, vegetation conversion and loss of vegetation.			
	Increase levels of data sharing between local government, industry and state agencies regarding land and water management			
	Coordinate and/or establish repositories of information on loss of geoconservation sites, heritage sites, decrease in visual amenity – skylines, prominent landscape features.			

QUESTION

Are there other measures we should implement in the Southern Region to improve landscape and cultural values?

ISSUE	POSSIBLE MANAGEMENT ACTIONS: OPTIONS	Is this Action Urgent?	Is this Action Important?
	<i>Decision making?</i>		
	<i>Communication & capacity building?</i>		
	<i>Planning & assessment?</i>		
	<i>Incentives?</i>		
	<i>On-ground works?</i>		
	<i>Regulatory arrangements?</i>		
	<i>Monitoring & evaluation?</i>		

QUESTION

What are the five most important and urgent things we should do, to make sure we manage our landscape and cultural values in the best way?