

Natural Resource Management
And
Culture, Heritage and Landscape Character
In the Cradle Coast Region of Tasmania

A Discussion Paper

December 2003

Draft

The Role of Discussion Papers in the development of the Cradle Coast Natural Resource Management Strategy

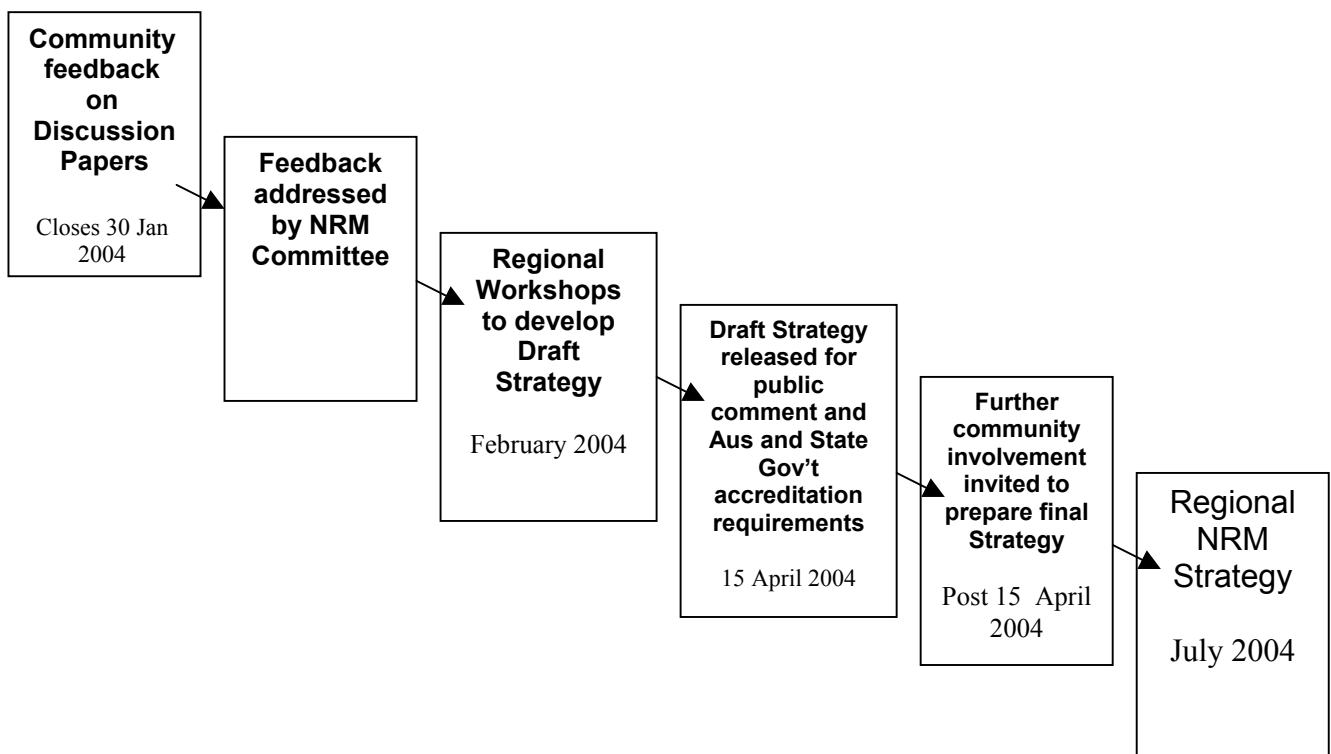
CRADLE COAST NATURAL RESOURCE MANAGEMENT COMMITTEE

A regional NRM Committee has been established to develop a strategy for the Northwest, West Coast and King Island region (Cradle Coast Region). The Committee is made up of representatives of Aboriginal community, state and local government, community and conservation interests, industry and land managers, including public land managers. This Committee is known as the Cradle Coast Natural Resource Management Committee.

WHY DO WE NEED TO MANAGE OUR NATURAL RESOURCES?

There are challenges for us all in the way we decide to utilise our natural resources such as water, air, land, plants and animals while maintaining healthy ecosystems and resources for future generations. Natural Resource Management (NRM) seeks to manage our natural resources in a sustainable manner for the longterm; achieving a balance between economic and social development and the need to protect the environment upon which they rely.

CRADLE COAST NRM STRATEGY TIMELINE



ROLE OF DISCUSSION PAPERS

These discussion papers represent the first phase towards the development of a regional NRM strategy. The Cradle Coast NRM Committee has developed discussion papers for key areas of natural resource management, they are;

- SUSTAINABLE PRODUCTION
- BIODIVERSITY
- CULTURE, HERITAGE AND LANDSCAPE CHARACTER
- CLIMATE CHANGE AND GREENHOUSE EFFECT
- WATER
- CAPACITY BUILDING
- AIR QUALITY,
- USE OF NATURAL ASSETS ON PUBLIC LAND

Please approach the discussion papers with the understanding that they are not considered to cover all issues comprehensively and do not prioritise or weight any issues more highly than others. The discussion papers are designed to stimulate and capture feedback from stakeholders on the breadth of issues concerning the community for input into the draft strategy.

THE VALUE OF YOUR CONTRIBUTION

Feedback from the papers will be used to develop material for a series of workshops beginning in February at which prioritisation of issues will begin for incorporation into and development of the strategy.

Your contributions are vital to the successful development of the strategy. To assist with providing feedback we have incorporated question boxes at the end of each paper; please detach and return to us by **30 January 2004**.

If you have any questions relating to the discussion papers or the process in general please contact a NRM facilitator at :

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Further copies are available: hardcopy, CD, Email and on the web at <http://www.nrmtas.com.au> (please call Kay Nielson at 6431 6285)

A NRM Newsletter which provides updates on the progress of the process. It is available on the web at <http://www.nrmtas.com.au> , hardcopy or email, please contact Carol Bryant on 64316285 or cbryant@cradlecoast.com if you would like to be placed on the subscribers list.

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Introduction

Tasmania's long term viability and prosperity depends on informed, participating people who can cultivate a philosophy of stewardship towards the environment. This will lead to a healthy environment and a healthy community. A strategic and integrated approach to the management of our natural resources is vital to achieving this. The State's natural resources are critical because they form the basis of industries such as agriculture, fisheries, forestry, mining and nature-based tourism, while also providing us with clean water and fresh air. They also include characteristics that help define us as Tasmanians, such as wilderness areas, unique plants and animals, extraordinary coastline rural scenery and places of cultural significance.

Places of cultural significance and heritage enrich people's lives, often providing a deep and inspirational sense of connection to community and landscape, to the past and to lived experiences. They are historical records, which are important as tangible expressions of Tasmanian identity and experience. Places of cultural significance reflect the diversity of our communities, telling us about whom we are and the past that has formed the Tasmanian landscape and us. They are irreplaceable and precious; these places of cultural significance must be conserved for present and future generations.

<p>NOTE: This discussion paper does not include Indigenous Culture and Heritage. This topic will be covered in a separate discussion paper.</p>
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Regional Priority: Culture, Heritage and Landscape Character

Cultural heritage refers to Aboriginal, maritime and post European historic heritage. Tasmania has an extraordinary range of cultural heritage assets. This heritage is found throughout the State, from a weatherboard house in Stanley to an old metal boiler deep in the Southwest National Park, from a kilometre long west coast midden to the patchwork burning of button grass plains on the Central Plateau. Managing this heritage focuses on individuals and communities acquiring and maintaining a sense of place and identity through the things that have been constructed around them - their heritage - while at the same time advancing a sense of the heritage other people appreciate.

Landscape character is also very pronounced in Tasmania. The dramatic changes from coastal landscapes to inland mountainous areas have a pronounced effect on the psyche of residents of the Cradle Coast Region. The landscape is a result of millions of years of environmental processes upon which humans have impacted only in the past 6,000 years. The pattern of grassed plains and forests are in many cases the result of fire-stick farming by Aborigines. The coastal landscape with its jutting geology e.g. Table Cape and the Stanley Nut, have meaning to many people in the region, as do the inland forests, mountains and cave systems. More recent landscape characters 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. These range from mining landscapes on the West Coast to our recreational landscapes formed around shack settlements.

Geoheritage sites are geological features, landforms or soils that are of value in their own right or as part of a natural process, rather than their utilitarian function or value to mankind. The Cradle Coast region contains a number of geoheritage sites ranging from limestone karsts in the Mole Creek area to the Beecroft Meggabraccia at Watson's Beach in Penguin.

Issues and proposed actions identified for Culture, Heritage and Landscape Character have been set out under three themes (key program areas) these are: Cultural Heritage; Landscape Character; and Geoheritage

Key Program Area: Cultural Heritage

Regional Goal:

- *To protect, enhance and promote the evolution of different elements of cultural and heritage significance*
 - *To recognise and appreciate the links between our cultural heritage and the natural environment*
-

CURRENT CULTURAL HERITAGE "DRIVERS" AND PLANNING MECHANISMS

Non-government bodies involved in the management of heritage assets include the National Trust of Australia (Tasmanian),

World Heritage Properties Conservation Act 1993 – Australian Heritage Council Act 2002
Land Use and Planning Approvals Act 1993 - Environmental Management and Pollution Control Act 1994 – National Parks and Reserves Management Act 2002

Historic Cultural Heritage Act 1995 - Protecting heritage assets of State or greater significance.

Historic Shipwrecks Act 1975 – together with – *Historic Cultural heritage Act 1995* - provide protection for shipwrecks in Tasmania.

Government agencies including Telstra, Hydro, DPIWE (farm dams) and Department of Transport have developed protocols with the Tasmanian Aboriginal Land Council for referral of development proposals for advice. There are examples of local level reconciliation. Such initiatives are supported and promoted by the Australian Local Government Association, and have the potential to create stronger and more trusting relationships in the future. Councils make decisions on development involving cultural and historic heritage, through their development approval processes and planning schemes. Planning schemes in the region generally contain a list (often limited) of historic properties and some provisions relating to protection of heritage values. The Burra Charter is commonly regarded as a best practice approach to European heritage conservation and is used in developing protocols for Local Government.

CURRENT ASSET CONDITION

The Tasmanian Heritage Council is the peak body in the State charged with protecting historic heritage values. The Department and Council work throughout Government and with private corporations and the public, to conserve cultural heritage places and values. The Tasmanian Heritage Office (THO) of DTPHA provides secretariat services for the Tasmanian Heritage Council, to assist that body in the protection of historic heritage. The THO is also involved in issues of policy, procedures, program management, and application of heritage standards. The THO undertakes field conservation works and development of information products for clients and the general public, including the Parks and Wildlife Service. The Historic Heritage Services section of the THO provides regulatory services for the *Historic Cultural Heritage Act 1995*. The Historic Heritage Projects section provides advice to government in relation to heritage projects, with a particularly focus on the Parks and Wildlife Service.

The main source of identified historic heritage assets is the Tasmanian Heritage Register, maintained by the Tasmanian Heritage Council under the *Historic Cultural Heritage Act 1995*. Over 5000 historic heritage sites are presently identified on the register. The Tasmanian Heritage Council considers completion of this register over the next few years to be a major priority. This register is subject to strict registration criteria and processes.

Historic shipwrecks are identified in the Shipwrecks database held by the Department of Tourism, Parks, Heritage and the Arts, under the *Historic Shipwrecks Act 1975* and *Historic Cultural Heritage Act 1995*. Supplementary lists of historic heritage assets of regional or local significance may be contained in local government planning schemes, or through Management Plans under the *National Parks and Reserves Management Act 2002* or other forms of government listings (eg. the Tasmanian Historic Places Index held by the Department of Tourism, Parks, Heritage and the Arts). These listings are not subject to the same rigorous registration criteria and processes as required under the *Historic Cultural Heritage Act 1995*.

The Tasmanian Heritage Register principally contains sites of national, state and possibly regional level value and significance. It does not contain areas or sites of significance to local communities nor do local planning schemes. Non inclusion of areas of local significance can

engender or entrench the view that a local community has no local culture deserving of protection, and can cause loss or damage to areas/sites or local significance through inappropriate development

VALUES IDENTIFIED

Historic heritage places are familiar to the majority of Tasmanians, 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 e.g. Sarah Island;
- Our terrestrial and sea-based maritime heritage - shipwrecks, extraordinary examples of Victorian light stations, and a range of wharves, jetties and ports;
- Places marking our timber, agricultural and mining industries - the gold and tin fields of the North-West, such as Balfour, Renodine, Leven Canyon, Ferndene, the unique sheep and cattle fields of the Vale of Belvoir and Woolnorth, and the Huon cutting fields deep in the Southwest National Park;
- The development of the Hydro Electricity projects in the twentieth century e.g. Lake Margaret Power Station and Gowrie Park;
- Our rich recreational and powerful artefacts of our natural heritage pursuits eg. Our shack culture, World Heritage reserves and network of threatened species habitats;
- Pioneer cemeteries;
- Community halls; and
- Sites of former settlement e.g. Halls Point, Penguin.

SPECIFIC GOALS

A number of specific goals are listed below, some of which have been taken from the Tasmanian Together Process:

- To identify, conserve and understand Tasmania's cultural heritage;
- Identify heritage sites encompassing aboriginal, European and maritime values;
- To foster sustainable management of Tasmania's cultural heritage assets, consistent with legislative and statutory obligations;
- Manage in consultation with the relevant bodies and in accordance with relevant legislation, to facilitate a community engaged and educated in cultural heritage;
- Provide legal protection to places and items of cultural heritage;
- To develop policies and processes of the highest standard which are clear, equitable and accessible to all and ensure legal protection is sufficient to ensure the desired level of protection is achieved;
- Ensure the management regime is effective in protecting identified values;
- To promote awareness of Tasmania's multicultural past and present;
- To foster a skilled and motivated Tasmanian heritage industry;
- To ensure equal opportunity to participate in community cultural events;
- To ensure that all levels of government are accountable for decisions;
- Aspire to a high level of public awareness and understanding of the contribution that heritage makes to social and economic wellbeing; and
- To protect areas of significant World Heritage value.

ISSUES IDENTIFIED

Issues identified for Cultural heritage are:

- Current management practices allowing for degradation of cultural heritage sites;
- The continued natural degradation of cultural heritage places and values over time;
- An increased focus on tourism, including heritage-based tourism;
- Greater competition for limited funds and resources both within the community at large and within Government;
- Changing demographics including the age, mix and distribution of people with an interest in cultural heritage;
- Changing community expectations;
- Increasing pressure to privatise management of cultural heritage site;
- A rural-urban drift and 'sea-change' pressures on coastal environment;
- A need for the identification and registration of sites particularly sites in coastal areas;
- A need for knowledge / available information / reason why places are special;
- A need for an appreciation of heritage sites;
- A need for cross-cultural understanding; and
- Forestry and mining activities adjoining protected areas and riparian zones.

PROPOSED ACTIONS

Proposed Actions identified for Cultural heritage are:

- Record oral narrations of history & culture before it is lost;

TASMANIAN HERITAGE COUNCIL

- Maintain Tasmanian Heritage Council regulatory services;
- Implement policies developed by the Tasmanian Heritage Council;
- Administer the Tasmanian Heritage Conservation Funding Program;
- Identify and register sites;

GOVERNMENT

- Provide advice to government in relation to shortcomings of the Aboriginal Relics Act 1975;
- Provide expert heritage advice and heritage project support services for PWS and other Government agencies;
- Provide expert heritage advice in support of the development of major State initiatives;
- Address the need to promote the intrinsic, social and economic values of cultural heritage;
- Address the need to broaden the role of research;
- Maintain/increase close liaison with the Aboriginal community on Aboriginal heritage issues;
- Identify and register sites, including spatial and mapping of sites;

LOCAL GOVERNMENT SERVICES

- Provide expert advice to local councils on the management and conservation of heritage properties;
- Increase awareness of heritage sites and their cultural value;

- Aim to forge relationships with developers;
- Aim to better understand the growing attachment of community groups and individuals to cultural heritage, including to places of local heritage significance;
- Address the need to include the voice of the community in management decisions;
- Address / reverse the loss of community halls;
- Councils to review heritage provisions in their planning schemes and incorporate provisions of the Burra Charter;

EDUCATION, PROMOTION, TRAINING AND TOURISM

- Work with the Tasmanian Heritage Council and key stakeholders to identify priority educational and interpretation requirements;
- Develop and implement a coordinated approach to the promotion of Tasmania's cultural heritage;
- Develop education, training and information programs to promote understanding within and among government agencies about historic heritage values, and the services and expertise available from the Tasmanian Heritage Office and the Tasmanian heritage industry;
- Conduct information sessions and forums across the state on heritage topics of mutual interest;
- Compile an inventory of sites within our region and produce a heritage tour guide;
- Address the increasing political importance of heritage tourism, with tourism driving political decisions on conservation issues;
- Aim to increase the role of interpretation and education, and develop flexible and broadly-based community educational programs;
- Aim to provide a diverse range of information (including multi-lingual signs and publications);
- Aim to forge local, state, national, and international partnerships with heritage tourism stakeholders;
- Acknowledge and engage an ageing community with retirement leisure time and considerable experience and expertise in heritage-related matters; and
- Embrace /encourage an increasingly multi-cultural society via events and educational instruments that encourage cross-cultural exchange.

GAPS IN EXISTING KNOWLEDGE OR MANAGEMENT SYSTEMS

Gaps in existing knowledge or management systems identified for Cultural heritage are:

- Educational, interpretive and promotional programs for cultural heritage;
- Completion of the Tasmanian Heritage Register to include areas of local significance;
- Protection for areas of World Heritage value; and
- A complete inventory of sites.

Key Program Area: Landscape Character

Regional Goal:

Achieve the desired landscape character for development in the region.

CURRENT LANDSCAPE CHARACTER “DRIVERS” AND PLANNING MECHANISMS

Non-government bodies involved in the management of heritage assets include the National Trust of Australia (Tasmanian), the Aboriginal Land Council of Tasmania and the Tasmanian Aboriginal Land Council.

Aboriginal relics Act 1975 - together with Aboriginal and Torres strait Island Heritage protection Act 1984 – Provide protection for Aboriginal heritage within the State.

Land Use and Planning Approvals Act 1993 - Environmental Management and Pollution Control Act 1994 – National Parks and Reserves Management Act 2002

World Heritage Properties Conservation Act 1993 – Australian Heritage Council Act 2002

World Heritage Areas (WHA)

Tasmanian Wilderness World Heritage Area (WHA) is one of the largest conservation reserves in Australia, covering 1.38 million hectares, or about 20% of the island.

The United Nations Educational, Scientific and Cultural Organisation (UNESCO) who established the Convention for the Protection of the World’s Cultural and Natural Heritage areas determine the world heritage areas.

Regional Forest Agreement (RFA)

The Tasmanian Regional Forest Agreement is an inter-governmental agreement between the State of Tasmania and the Commonwealth of Australia, signed on 8 November 1997. The Agreement provides for the long-term sustainable management of Tasmania’s forests, both public and privately owned, and applies for 20 years, with five-yearly reviews.

Desired actions for change can be identified and directed through the land use and development policies of regional bodies, particularly Parks and Wildlife and councils. They can be written into management plans, local area plans and planning schemes for use in assessing development proposals and deciding on appropriate infrastructure type, siting and design e.g. in the case of forest plantations, through persuasion and through formal objection and appeal procedures.

CURRENT ASSET CONDITION

Many in the community appreciate the character of the coastal strip, adjacent rural and mountainous areas and settlements. Some are concerned that inappropriate development (including vegetation removal and excessive rural-residential development) could undermine the pleasantness of place and distinct and attractive character of the Cradle Coast region.

Particular elements of the regional character include headland vistas over Bass Strait, the patchwork of different crops, colours and textures in rural areas, the undulating landforms with trees and other vegetation on skylines and the coastal strip, the colour of red soils, and the largely uncluttered rural holdings and activity in between towns and cities. King Island has some of these elements as well as tree lined watercourses and fence lines and areas of isolation and natural vegetation. The West Coast has an isolated and largely natural vegetation character with a strong visual relationship to the sea and coastal landforms including beaches, rocky shorelines and sand dunes.

The Cradle Coast region is also home to a number of Australia's iconic Wilderness areas, such as the South West World Heritage Area, Cradle Mountain National Park, Rocky Cape National Park and the National Estate Listed Tarkine wilderness.

The Tarkine wilderness area, in the North West of Tasmania is one of the most significant wilderness areas in Australia, containing Australia's largest contiguous area of temperate rainforest (Australian Heritage Commission, 2003). Limited areas have been subjected to intensive forestry operations, small-scale mining and mineral exploration and cattle grazing on the coastal strip. Off road vehicle use is increasing, particularly in the coastal zone. (Condition Statement, 1994). The Tarkine is important as a flora refuge, providing a climatic or topographic refuge for elements of forest communities of the last Ice Age. This site complies with all the criteria for WHA listing.

Most of the outlined elements of the region's character are under threat from some source – principal threats including: tree clearance; rural-residential sub-division; wide scale plantation forestry; wildfires; indiscriminate vehicle access; erosion damage resulting from cattle grazing; and off- road vehicle access. In some rural areas traditional farming has given way to forest plantations, involving amalgamating properties and removing residents. As areas lose population, services enjoyed by the community are threatened and the character of the area changes dramatically – this has been the experience at Preolenna, Meunna, Hampshire and West Ridgley.

Characters of areas change, indeed most have changed significantly over the last 20 – 30 years or so. While some change may have been for the better, many would argue that others have not been an improvement, visually or environmentally. To a significant extent it is likely that undesirable change occurred because the desired direction of change was not identified or agreed, and was not contained in relevant planning documents.

VALUES IDENTIFIED

Values identified for Landscape Character are:

- Present natural landscapes in our environment;
- Recreational value that landscapes provide;
- Tourism opportunities that landscape provides; and
- Aesthetics of place.

SPECIFIC GOALS

Specific Goals identified for Landscape Character are:

- To protect areas of significant World heritage value;
- To create an understanding of important landscape character values within the region; and
- Determine the desired character for development in the region.

ISSUES IDENTIFIED

Issues identified for Landscape Character are:

- Current management practices, allowing the continued degradation of landscapes and values over time;
- Political pressures and choices resulting from changes to Federal and State government legislation and increasing development pressures from commercial interests;
- Logging in high conservation value areas;
- Forestry and mining activities adjoining protected areas and riparian zones;
- A need for an appreciation of cultural assets and landscape qualities;
- Assumption by community that things will always stay the same; and
- Greed, make a \$ at any cost.

PROPOSED ACTIONS

Proposed Actions identified for Landscape Character are:

- Regional character to be identified and mapped and incorporated into Crown Land management plans and Councils planning schemes;
- Adopt a precinct approach to defining the character of the different local areas (natural, rural and urban) within their areas of management and incorporating these into management plans, local plans and planning schemes; and
- Lobby State to register the Tarkine Wilderness as a World Heritage Area.

GAPS IN EXISTING KNOWLEDGE OR MANAGEMENT SYSTEMS

Gaps in existing knowledge or management systems identified for Landscape Character are:

- Do we as a community know what we want? Have we considered future development in terms of future protection or enhancement of landscape character?

Key Program Area: Geoheritage

Regional Goal:

Protect sites of geoheritage significance.

Geoconservation and geodiversity issues addressed under the following Tasmania Together goals include:

21. Value, protect and conserve our natural and cultural heritage
22. Value, protect and maintain our natural diversity

CURRENT GEOHERITAGE “DRIVERS” AND PLANNING MECHANISMS

The recently completed Nature Conservation Strategy includes a recommendation to protect and promote the importance of geodiversity. The Tasmanian government has identified 17 priority areas from the Nature Conservation Strategy, including ‘Complete integrated catchment management as a priority for natural resource management’. ICM is directly relevant to the management of karst, rivers and estuaries.

Most recently produced national park management plans have specific actions and objectives to protect geodiversity in national parks and on other reserved land.

The Mersey Catchment NRM plan contains specific reference to the Mole Creek karst area.

CURRENT ASSET CONDITION

Geoheritage sites are geological features, landforms or soils that are of value in their own right or as part of a natural process, rather than their utilitarian function or value to mankind.

Although small in area compared to mainland Australia, Tasmania has a remarkably varied geology, a wide range of landforms and a variety of soil types. The Cradle Coast Region is no exception and 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 to the relatively young basalts of the north coast which are only 10 to 13 million years old. There is also a significant array of landforms, which have formed in response to processes from coastal and marine action to riverine action, karst processes, and glacial and periglacial action. There is even a meteorite impact crater near Queenstown. 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 Cradle Coast 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 The Nut, and sites such as the Penguin Meggabraccia situated 900 m east of Watcombe's Beach (of local and world significance) are robust and do not need active management while others like the karst around Gunns Plains or Mole Creek and many of the sand dunes on the west coast need careful management and protection. Other sensitive sites include fossil sites, restricted geological outcrops such as those on King Island, wetlands (west coast peat lands) and riverine environments.

Important karst areas occur in the far northwest around Montagu, near Railton, at Gunns Plains, Loongana, Mt Cripps, the Vale of Belvoir, around Corrina, in the Savage/Lyons River region and across vast tracts of the southwest. Karst also occurs on King Island. Parts of the Mole Creek karst occur in this North-West/West Coast Region although most of it occurs in the Northern Region. Spectacularly decorated caves occur at Gunns Plains, Loongana, Mt Cripps and Mole Creek whilst the magnesite karst around Savage/Lyons River has significant springs and surface karst features. Cave deposits have fossil material including megafauna bones from extinct marsupials, which are of great scientific importance. The giant freshwater crayfish occurs underground in some cave systems. The tufa terraces, limestone features that have formed on the surface at Boggy Creek on King Island, are arguably the most significant terraces in Australia.

The northwest has a wide range of coastal landforms including some of the most extensive dune systems in the State that are (naturally) mobile and occur around the Henty River mouth and near Sandy Cape. The area contains a range of dune types including transgressive dunes (Henty River and Sandy Cape), bay mouth spits (Ocean Beach), bayhead dunes (King Island and the south west) and headland bypass dunes (King Island). The southwest contains the last completely untouched dune systems in the State. The coastal landforms around Smithton are some of the most significant in the State while this

area and the east coast of King Island are some of the very few parts of the State where the coast is actively growing out to sea or prograding.

Rivers in the northwest of the Cradle Coast Region vary widely depending on their evolution, the climate (rainfall) and topography/geology. Headwater streams in the high glaciated country of the southwest occur in areas that can be extremely rugged (south west mountains) to plateau country such as in the West Coast Range. Many of the rivers and creeks that flow towards the north coast are incised flowing through steep valleys. Lowland rivers include spectacular meandering rivers south of Macquarie Harbour to distinctive lowland river types such as the Duck, Montagu and Welcome Rivers, which originally flowed as branching channels through extensive swamp forest. West coast estuaries are typically narrow drowned valley types exemplified by the lower Arthur, Pieman and Gordon Rivers. Significant wetlands also occur adjacent to these estuaries.

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 to highly developed. Wilderness karst in the southwest is in pristine condition whilst highly developed and somewhat impacted karst is found in the Montagu – Welcome – Duck valleys. Coastal location conditions also vary enormously with highly altered parts of the coast along the Bass Strait to the pristine coast in the southwest. River conditions are much the same.

Even hard rock sites have been impacted as the navy once used the spectacular basalt columns on Black Pyramid (in the Bass Strait) for target practice whilst other basalt columns in an urban area of the northwest have been covered for car park development. This has impacted on the natural integrity of these significant sites.

SPECIFIC GOALS

Specific Goals identified for Geoheritage are:

- Parks and Wildlife and Local Government should undertake detailed surveys of sites of geoheritage significance, determine threats, appropriate planning and management policies, and site development opportunities, and incorporate into management plans and planning schemes; and
- Parks and Wildlife and Local Government to negotiate Local Government access to the Tasmanian Geoheritage Database and for such information to be incorporated in local data-bases for use in development of planning policy and planning schemes

ISSUES IDENTIFIED

Issues identified for Geoheritage are:

- 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;
- Damage to karst areas include disturbance of their catchments by activities ranging from forestry to agricultural and domestic activities and infrastructure development;
- Damage to karst systems by pollution of catchment waters;
- Rivers processes change by land clearing and river regulation such as dam building;
- Sediment extraction from rivers;

- Disturbance of coastal landforms in one area have resulted in massive change in an adjacent location;
- Impaction by road widening including important rock outcrops. Significant boulder dumps have been removed from the Forth River whilst on the Mersey River a highly significant terminal moraine (glacial feature) was removed for building material;
- Rare magnesite karst has been impacted in the northwest by poor exploration practices, which would not be approved today, whilst spring mounds around Smithton have also been seriously impacted by development;
- Geoscientific collecting near City of Melbourne Bay on King Island has significantly degraded an important coastal exposure with numerous core holes that will take many thousands of years to weather away;
- Sea level rise is a direct threat to coastal landforms;
- Fire can be a threat to soil processes and soil development and particularly to peat soils. Horizons that are thousands of years old can be destroyed by one fire; and
- Mining and quarry operations have the capacity to remove or damage geomorphological features.

PROPOSED ACTIONS

Proposed Actions identified for Geoheritage are:

- Conduct systematic assessments for sites of geoconservation significance in the north-west/west coast region;
- Assess the condition of sites already listed on the Tasmanian Geoconservation Database;
- Assess the impact of sea level rise around the region and particularly on coasts, around Port Sorell, Ulverstone, Burnie, Devonport and Smithton. This can build on the work conducted by Sharples for the WNW Coastal Management Plan 1999;
- Continue the work on stream (geomorphological) characterisation and complete inventories of streams with the aim of producing an “Atlas of Tasmanian Streams”;
- Ensure appropriate consideration of the Mole Creek Karst Strategy in management planning and decision making for private and public land and municipal planning schemes;
- Adoption of integrated property plans which adequately address geoconservation issues;
- Increased rate of adoption of protective management measures such as fencing of sensitive sites; and
- Ascertain the rate of adoption of voluntary conservation covenants over land with geoconservation values as a method for evaluating protection of Geoconservation values.

