



UNCOMMON THINKING

Natural Resource Management in Southern Tasmania

*A scan of strategic environmental
issues and emerging concerns*

Executive Summary

Prepared for

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Executive summary

REVIEWING THE NATURAL RESOURCE MANAGEMENT STRATEGY FOR SOUTHERN TASMANIA

NRM South commissioned Rare Consulting to undertake two background studies as part of the Natural Resource Management Strategy review process for Southern Tasmania (the Southern Region). The two studies include:

1. A reflective study entitled *Summary of principal achievements in natural resource management in the Southern Region of Tasmania since 2005*. This study reviews and reflects on the implementation of the 2005 Natural Resource Management Strategy for the Southern Region and summarises key achievements of the region in implementing natural resource management.
2. A strategic study entitled *Natural resource management in Southern Tasmania: A scan of strategic environmental issues and emerging concerns*. This study is a high-level strategic study as opposed to a detailed technical study. It provides an independent and objective analysis of the key issues for the region for the next regional strategic planning period based on a scan of existing natural resource management issues, emerging issues and consideration of changing socioeconomic, regulatory and political operating environments for the region. It also provides recommendations for the development of the 2010–2015 regional natural resource management strategy.

This paper largely discusses the findings of the second investigation but also provides a summary of the key findings from the reflective work. The findings of this work are discussed in the context of providing guidance on the key strategic issues and emerging issues that will likely shape the natural resource management agenda in Southern Tasmania in the near term.

Approach

The following outlines the approaches of both studies.

Summary of principal achievements

The study collated and summarised region-wide natural resource management activities and achievements since 2005. Achievements were interpreted as *accomplishments* and *successes*. Information about actions throughout the region was collected via:

- a desktop review of NRM South documents (including project reports, evaluation reports, annual regional investment planning documents, and reporting on activities by NRM South and other regional partners);

- an internet focused search of natural resource management stakeholder websites and other public information sources (i.e. newsletters, publically available government reports);
- consultation of NRM South personnel focused on information sharing and validation;
- the conduct of unattributed, semi-structured telephone interviews of eighteen ‘knowledge experts’ and regional natural resource management stakeholders, which enquired about achievements and key learnings.

All information collected on projects and their outcomes was summarised into data tables according to their relevance to the seven 2005 Strategy resource themes:

- integration
- managing water resources
- managing land resources
- managing marine, coastal and estuarine systems
- managing native flora and fauna
- managing cultural landscapes
- managing for sustainable communities and a sustainable economy.

The tables and interview findings were then used as the foundation for analysis of principal achievements and identification of significant achievement examples.

Scan of strategic environmental issues and emerging concerns

The scan of strategic environmental issues and emerging concerns comprised the following steps.

1. Analysis of the performance of the 2005 Strategy strengths and weaknesses.
2. A systematic scan of environmental condition and issues across the seven 2005 Strategy resource themes via:
 - a desktop literature review
 - reference to qualitative interviews with eighteen regional knowledge experts about ongoing and emerging issues
 - reference to stakeholder and technical consultations carried out by NRM South from 2007 to 2009.

Analysis provided information about relative condition of natural resources in the region since the 2005 Strategy, and identified current and emerging issues that are likely to impact on natural resource management and the operating environment for the Southern Region.

Change in the operating environment for natural resource management in the region and natural resource issues were assessed in the context of:

- community change (attitudes, values, awareness, and behaviour)
 - physical environmental change issues across scales
 - socio-economic change
 - political change (including policy and funding environments)
 - regulatory and legislative environments and change (including planning systems).
3. Identification of overarching and emerging issues of significance to be considered in the next regional strategy period.
 4. Development of recommendations for a framework for the 2010 Strategy.

A REFLECTION ON PAST ACHIEVEMENTS AND KEY LEARNINGS

Implementing the 2005 Strategy: Principal Achievements

The Southern Region has undertaken a wide range of activities that are consistent with the original strategy, analysis of all of these activities gives rise to the identification of seven principal regional achievements:

- positive engagement of stakeholders and community across sectors
- working together and development of successful partnerships
- awareness raising in the community and targeted sectors
- developing and applying integrated and holistic approaches
- improving information and data consistency and access
- working towards better monitoring, evaluation and reporting for improvement
- building capacity in sectors of the community.

A summary of achievements and example projects is provided on the NRM South website at <http://www.nrmtas.org/whatsNew/south/latestNews.shtml>

While there have also been achievements in the maintenance and improvement in resource condition in parts of the region and in some resource areas (e.g. the eradication or significant reduction in some invasive weed species and improvement in Ramsar Wetland water quality and natural habitat), a lack of quantitative information on the state of natural resources made it difficult to provide a meaningful assessment of quantitative changes in the resource condition. The study team noted that the Tasmanian State of the Environment Report is due to be published in the near future and should provide more insight in respect of this issue.

The review of activities and achievements across the region also exposed some apparent deficiencies in respect of progress in natural resource management since 2005. These can be summarised as:

- an uneven distribution of natural resource management activities across the natural resource theme areas – areas of particular strength in activity included water resources, and native flora and fauna, whereas activity in the land resources, marine and cultural landscape theme areas tended to be less prolific;
- significant data gaps in baseline and monitoring data for natural resource condition assessment;
- a lack of progress in the improvement of integrated policy, planning (including regional strategic land use and settlement planning) and decision making across scales for improved natural resource outcomes.

Some other issues needing further attention were also mentioned, for example:

- the need for improved attention to the incorporation of cultural landscape values into natural resource management;
- the need to address rural tree decline.

Learning from the 2005 Strategy

Reflection on the review of achievements and review of the functionality of the 2005 Strategy identified six strategic insights around the performance of the 2005 Strategy. These have been considered as key learnings for improvement in future strategy development. They are:

1 The lack of strategic priorities and the problem of spreading resources too thinly

The 2005 Strategy spreads itself too thinly in terms of focused activities and desired outcomes as expressed through the targets for each natural resource theme area. Ultimately this has meant it has been difficult to deliver across all areas. It will be essential for the new strategy to better prioritise those natural resource management issues that require most urgent attention over the next five-year strategy period and to ensure these are realistic priorities based on regional capacity.

2 Paucity of baseline data on resource condition within the region

A paucity of baseline data has made it difficult to understand the extent of resource condition within the region, and has impeded effective prioritisation of investment activities and establishment of resource condition monitoring.

3 Difficulty in establishing progress due to gaps in the capacity to measure resource condition over time

Apparent gaps in the monitoring of resource condition has made it difficult for the region to establish progress towards many of the 2005 Strategy targets. While there has been progress in improved monitoring and evaluation systems it will be important to maintain attention to the need for improvement in these in order to establish useful and achievable indicators for use in measuring progress.

4 A poor level of fit between regional natural resource management aspirations and collective regional resources

A poor level of fit between regional natural resource management aspirations and the collective regional resources of key delivery agencies is evidenced by the variable implementation of activities across the 2005 Strategy themes since 2005. There is evidence from a review of achievements in the region that some natural resource theme areas have been more active than others. It is understood that there are varying reasons for this, particularly funding from traditional commonwealth and state government natural resource management programs according to their own agendas. It will be important therefore to consider other opportunities for funding beyond traditional commonwealth funding sources into the future.

5 Evidence of positive engagement activities in the region

Since the 2005 Strategy, the region has demonstrated a capacity to work together on a range of fronts and engage constructively with a variety of sectors in the community. This is a particular strength in the region and will hold the region in good stead into the future, as collaborative approaches and active engagement of the community will continue to be essential in the delivery of natural resource management.

6 A lack of achievable targets in the 2005 Strategy

Targets in the 2005 Strategy appeared ambitious in number and are often difficult to measure. The limitations associated with the availability of baseline data and monitoring capacity across all natural resource management theme areas points to the need for the development of targets or goals that are achievable and easily measurable in the next strategy period.

ENVIRONMENTAL SCAN OF ONGOING AND EMERGING ISSUES

The scan confirmed that natural resource management is complex and challenging for a variety of reasons, merely by the breadth of natural resource assets and issues, the diversity in values associated with natural resources and the integrated nature of the task of natural resource management itself.

Ongoing issues and pressures for the region

As the Southern Region moves into the next strategy period it is apparent from the scan that many of the issues associated with natural resource management will remain unchanged, particularly:

- the continuation of invasive weed management (an ongoing challenge for a variety of stakeholders);
- the management of impacts associated with urban and infrastructure development, and land use change;
- the management of rivers and catchments and estuaries to improve water quality, flows and ecosystem condition;
- the protection of ecosystems and species for biodiversity;
- the management of salinity.

New priorities for the community

Other issues have emerged in the community as new priorities, for example:

- understanding the implications of global warming on the future regional climate and understanding the implications of climate change on natural resource assets to identify priority issues (scenario modelling and risk and vulnerability assessment);
- developing strategies, and implementing these, for both mitigation of greenhouse gas emission and adaptation to climate change;
- pursuing more sustainable behaviours and practices across a range of community sectors (including households, industry and commerce and government);
- the recognition that natural resource management issues associated with new major infrastructure projects and cumulative development pressures need to be better managed (including integrated planning for the continued urban expansion of greater Hobart and coastal settlements, land use reclassification, and major infrastructure projects such as the Tasmanian Irrigation Development Scheme).

Emerging operating environments

In addition to changing community interests, operating environments for natural resource management in the region are changing. These include:

- an evolving climate change policy and regulatory environment that will present opportunities and risks for the regional economy and natural resource oriented industries, including:

- national economic reform through an emissions trading scheme that is intended to reduce the carbon intensity of the Australian economy through introducing a price for carbon. This will have a range of impacts on industry costs and efficiencies throughout supply chains and encourage less carbon intense commercial activities;
- requirements of larger emitters to monitor and report greenhouse gas emissions (including natural resource oriented industries and waste management authorities);
- establishment by federal and state governments of both ‘carrot’ and ‘stick’ incentives to reduce greenhouse gas emissions and enhance greenhouse gas sinks to work towards greenhouse gas reduction targets;
- an emerging understanding about bio-physical changes associated with climate change (risks, threats and opportunities) through the roll out of research activity in the climate change impacts and adaptation field across sectors and scales;
- demographic changes and population movement from the mainland associated with an ageing population and increasing attraction of Tasmania and the region for lifestyle purposes (sea-changers, tree-changers and rural lifestylers). This will have variable and locally specific impacts on the region, presenting opportunities and challenges for local communities, economies, services and the management of natural resources;
- the roll out of regional planning in Tasmania in which sustainability and natural resource management interests have the opportunity to become central considerations.

These changing operating environment and community priorities point to two core significant issues for the region. These are: climate change, particularly its implication for adaptation but also for opportunities in mitigation via natural resource activities; and ongoing pressures associated with land use change and development.

Significant issues going forward

Climate change

The global imperatives for acting on climate change, including the need for mitigation and adaptation, are now clear. The Australian Government is now a party to the Kyoto Protocol and is implementing a program of mitigation actions. It also has a National Adaptation Program which is rolling out and facilitating priority adaptation research, collaboration and engagement of stakeholders. Similarly the Tasmanian Government has recently committed to a greenhouse gas emission reduction target to reduce emissions to at least 60% below 1990 levels by 2050 while it also recognises that there are many climate change risk and adaptation issues that need to be understood.

Mitigation of global warming (via measures to reduce greenhouse gas emissions and to enhance sinks) engages natural resource management through considerations around of the role of natural resources in carbon sequestration and the need to limit the removal of carbon sinks through the management of forests, land use change into the future and private landholder commercial carbon offsetting or soil sequestration opportunities. Mitigation responses will also need to pervade other sectors throughout the community, including the way we manage urban growth and development, individual lifestyles,

and industry, government and commercial activities. Some of these may have implications for natural resource management, such as the way we design and develop our urban environments into the future.

The most significant climate change challenge for natural resource management in the Southern region, however, will be the management of the impacts of climate change on natural resources, particularly key natural resource values. There are numerous issues for the region to consider, including understanding which natural systems and natural resource commercial activities are most at risk, and which natural systems we should facilitate adaptation for. Understanding the extent of the challenge spatially, sectorally and temporally will be crucial in the next regional planning period in order to begin to develop response strategies through collaborative efforts and stakeholder engagement.

Land use change and development pressures

The study affirms the continuing significance of development and land use change associated with human activities as core pressures on natural resource condition in the region. Examples of key pressures include:

- the impact on natural resources and natural resource management approaches of changing land use. For instance: from woodland to agriculture;
- the risk of fragmenting natural ecosystems, restricting ecosystem connectivity and the capacity to facilitate refuges for vulnerable species, due to the development of land for urban and infrastructure use, agriculture or forest plantations;
- the cumulative impact of urban expansion on natural resources including habitat loss, pollution of water ways and degradation of urban reserves and other ecosystems of value;
- the pressure to focus development in coastal and estuarine zones due to the relative attractiveness of these environments for human settlement, tourist activities and recreation;
- major infrastructure projects, for example the Tasmanian Irrigation Development Schemes, and major transport infrastructure projects.

Such pressures may also present opportunities for natural resource management interests to be better addressed, for example regional planning should facilitate community reflection on the character and form of urban development in the greater Hobart region into the future, while new irrigation infrastructure schemes may present opportunities for improving natural resource condition (such as river flows and sustainable practice in soil management).

Issues related to the management of natural resources

This study concluded that there are four overarching and fundamental issues for the effective management of natural resources in the Southern region which are likely to form the foundations for natural resource management programs. They appear as common threads in the environmental scan analysis in each of the theme areas, and include:

1 The need for baseline data

In order to better inform decision making, there is a strong need for baseline data. Not only does up-to-date data provide a means of assessing the effectiveness of prior actions, it significantly serves to guide future strategies by allowing the region to:

- quantify the extent of issues
- prioritise issues appropriately
- structure ongoing monitoring and evaluation appropriately.

2 Continued monitoring, evaluation, reporting and improvement systems and mechanisms

Monitoring, evaluation, reporting and improvement (known as MERI) are essential components of natural resource management, and are now established requirements in nationally funded natural resource management programs. Organisations responsible for the delivery of funded programs (such as state government agencies and NRM South) have a responsibility to implement MERI systems and mechanisms and to work with stakeholders and natural resource managers to develop good MERI activities, whether they are data collection activities (as part of monitoring) or evaluation processes (through independent review and multi-stakeholder participation). While there has been good progress since the 2005 Strategy there is much to do in the area of monitoring for the purpose of improving evaluation capacity in assessing resource condition and change, prioritisation of natural resource management projects and measurement and communication of progress towards strategic goals.

3 Development of systems and mechanisms for better policy, planning and decision making

A reoccurring theme throughout this study is the important role of policy, planning and decision making mechanisms in improved natural resource management outcomes. Since the condition of natural resources is invariably linked to a range of environmental factors, particularly the impact of human activities, it is vital to consider these impacts in a range of policy and planning instruments.

There have been some developments to improve the Tasmanian planning system recently, therefore the next regional natural resource management strategy period will need to focus on continued improvement in embedding sustainability and natural resource management considerations into both strategic and statutory planning instruments for improved decision making and natural resource management outcomes. This will also require improvements in integration and coordination between state government agencies, local government operational units and between state and local government. The region has experienced improved coordination and collaboration between local government with the formation of the Southern Tasmanian Councils Authority. Initiatives of this group in regional planning, and preliminary work around climate change adaptation issues for the region are positive developments that will need to be strengthened.

Likewise it is essential for the natural resource management community to engage with government on the initiation and development of more and improved high-order state policies to better guide decision making across scales for improved natural resource management outcomes. Without sound policy and planning, decision making for the delivery of sustainable outcomes and natural resource management is compromised and the delivery of improved natural resource management outcomes is difficult.

4 Engagement of the community in, and about, natural resource management

Effective participation and engagement across the community is a fundamental part of natural resource management. Engagement may include raising awareness about natural resource management issues and solutions in sectors of the community; comprehensive education programs and the provision of technical information for the implementation of more sustainable practices across a range of sectors (e.g. practices related to commercial activities in the marine environment, farming and land management practices, and recreational and household lifestyles); engagement of stakeholders in monitoring, evaluating and prioritising natural resource management issues; and collaboration with diverse stakeholders on natural resource management projects.

Community engagement for the purpose of building community-wide capacity in natural resource management and sustainability will therefore remain pivotal in the next regional natural resource management strategy period. Key challenges will include the need to engage with both traditional and new stakeholders as new issues such as climate change come to the fore; to engage the community effectively and constructively (especially when working on difficult natural resource management problems or on issues where there are diverse values); and to identify the most effective engagement and communication opportunities.

RECOMMENDATIONS FOR THE DEVELOPMENT OF THE 2010-2015 NATURAL RESOURCE MANAGEMENT STRATEGY FOR SOUTHERN TASMANIA

The study considered the further development process of the 2010 Strategy and made some recommendations on the framework for the strategy development. Four steps were identified in the strategy development process:

- **STEP 1** Identification of the Southern Region’s aspirational goals for the next five years through stakeholder consultation.
- **STEP 2** Identification and prioritisation of achievable actions that will help to work towards the goals identified through stakeholder consultation.
- **STEP 3** Construction of headline indicators by which to measure natural resource management outcomes based on the headline goals identified.
- **STEP 4** Documentation of the 2010 Strategy in a succinct and easily referable way.

In the collective discussion of the headline goals for the region via stakeholder consultation forums, stakeholders will need to consider a range of priority actions. These will likely focus on four action categories as identified in the environmental scan:

- data and information
- policy, planning and decision making
- strategic and holistic on-ground natural resource management
- community engagement (capacity building activities).

In developing priority actions, consideration will also need to be taken of some overarching principles and considerations which pervade across most natural resource management challenges. These are the application of:

- sustainability thinking based on the statutory objectives of the Tasmanian Resource Management and Planning System;
- natural resource management best practice principles;
- thinking around the need to understand, and prepare for, climate change in the region.

It is important to point out that this paper does not recommend the attention to climate change in a separate theme. Instead it is recommending that ‘climate change thinking’ be embedded across themes. This way it can be addressed and managed consistently and in the context of sustainability and the myriad of other pressures.