



Forestry Tasmania

# Sustainability Charter



## Forest Management Plan 2008

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FORESTRY TASMANIA  
**SUSTAINABILITY CHARTER**  
FOREST MANAGEMENT PLAN 2008

## **Sustainability Charter**

Through this Charter, Forestry Tasmania will manage state forests in accordance with the following five sustainability objectives:

### **Sustaining biodiversity and habitat**

Aims:

- Maintain a reserve system in state forests in accordance with the Regional Forest Agreement and Tasmanian Community Forest Agreement.
- Work with other forest managers to maintain Tasmania's comprehensive, adequate and representative (CAR) reserve system.
- Maintain a diversity of natural habitats and mixed aged forests to support biodiversity across the forest estate.
- Maintain the current proportion of native forest in state forests.
- Maintain viable populations of all existing animal and plant species and communities found in state forests.
- Maintain a minimum of 251,000 hectares of oldgrowth in reserves in state forests (25 per cent of Tasmania's reserved oldgrowth) for conservation values.
- Retain oldgrowth elements including large trees, stags, understoreys and logs across the forest estate.
- Identify and protect giant trees in state forests.

### **Sustaining jobs for future generations**

Aims:

- Promote and support domestic processing and value adding of wood products.
- Maintain a sustainable supply of commercial timber.
- Ensure an ongoing long term supply of the highest quality eucalypt timber from native forests.
- Ensure an ongoing long term supply of specialty timbers.
- Establish and manage plantations to maintain supply levels to industry.
- Manage state forests to ensure an ongoing supply of leatherwood honey and other non-wood products and services.

### **Sustaining carbon stores, clean air, water and healthy forests**

Aims:

- Manage state forests for long term carbon storage and provide a sustainable source of products which contribute to locking up carbon and reducing emissions.
- Monitor emerging climate change scenarios and trends and adapt forest management practices.
- Reduce the impact of planned burning on air quality.
- Ensure availability of clean water from state forests.
- Protect soil values and geodiversity.
- Control weeds, pests and diseases to protect state forests.
- Avoid use and minimise risks of chemical control methods.
- Use controlled fire to emulate natural conditions and achieve ecological, silvicultural and forest health benefits.

- Reduce the risk and impact of wildfire.

### **Sustaining community access and heritage**

Aims:

- Encourage active recreation.
- Promote opportunities for commercial tourism ventures.
- Provide public access to state forests.
- Provide for traditional activities.
- Promote safe work practices and safe use of state forests.
- Identify, protect and maintain Aboriginal and historic cultural heritage values in state forests.
- Seek active consultation with the Aboriginal community to develop opportunities for collaborative management of Aboriginal sites and values.
- Protect regional, rural and natural landscape values.
- Actively promote open and constructive relationships with stakeholders and the broader community.
- Be a good neighbour.

### **Sustaining science-based stewardship**

Aims:

- Comply with the law.
- Maintain independent, third party certification of forest management.
- Use science to inform continuous improvement in forest policy and management.
- Maintain accurate information, effective systems and procedures, and skilled personnel for forest management.

## Preface

The Sustainability Charter lays the framework for the sustainable management of Tasmania's state forests for the next decade.

In essence, the Charter is a single statewide Forest Management Plan<sup>1</sup>, responding in a holistic way to the community's expectation and aspirations for its forest assets.

This Charter replaces seven district plans and responds to the growing need for information to be made more accessible. It allows Forestry Tasmania to more transparently communicate its statewide direction, and how it intends to manage the forest estate taking into account and balancing economic, social and environmental values.

Since Forestry Tasmania was corporatised in 1994 community expectations have changed. This Charter reflects the new Vision, Mission, Corporate Objectives and Values, developed cooperatively by the Board, senior management and all staff in 2008.

### Stewards of the Forest

#### Vision

Tasmania's state forests will be a globally trusted source of sustainable timber and other forest products and services for this and future generations.

#### Mission

Forestry Tasmania manages state forests for optimum community benefit, using environmental best practice to create long term wealth and employment for Tasmanians.

#### Corporate Objectives

Forestry Tasmania aims to:

- Embrace science to achieve best practice environmental stewardship and maintain Australian Forestry Standard certification.
- Create long term business and employment opportunities for the community by managing the forests for multiple use and encouraging down stream processing.
- Achieve positive financial returns through sound, ethical business practice.
- Build community trust through honest dialogue.

#### Values

- We care for people and their environment.
- We think before we act.
- We get things done.
- We do what we say we will do.
- We are proud of who we are and what we do.

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<sup>1</sup> This Charter is a Forest Management Plan as referred to in Section 22 of the Forestry Act, 1920

## Foreword

Forestry has been a cornerstone of the economy since European settlement. Together with mining and mineral processing, agriculture and tourism, forestry remains one of the main industries in the state and contributes more than \$1.5 billion to the economy each year.

It is estimated that immediately prior to European settlement, Tasmania had about 4.8 million hectares of native forest. Since then around 35 per cent has been cleared to make way for farms, dams, towns and more recently rural residential blocks. Remarkably, 65 per cent of the original native forest cover remains and with the establishment of plantations, there has actually been an increase in forest cover since 1996.

Tasmania's total land area covers 6.8 million hectares, including 3.3 million hectares of forest. Some 1.5 million hectares is state forest managed by Forestry Tasmania.

The Regional Forest Agreement resulted in 40 per cent of forest and 95 per cent of high quality wilderness areas in Tasmania being reserved from timber harvesting. Since the establishment of the Tasmanian Community Forest Agreement these figures have increased to 47 and 97 per cent (as reported in the 2006 State of the Forests Report).

Today, forest management planning for state forests is a comprehensive and complex process reflecting diverse and sometimes competing values. The Charter forms part of a larger forest management planning system and provides a vital step towards achieving sustainable forest management.

In 2006/2007 the estimated value of wood production from state forests, based on the price paid by Forestry Tasmania's customers for logs delivered "at the mill door", was \$237M. Of this, approximately 71 per cent came from native forests, four per cent from hardwood plantations and 25 per cent from softwood plantations. The estimated final value of wood products produced in Tasmania from these logs in 2006/2007, based on recovery and value of each product, was \$662M.

Tourism and recreation are also a major part of Forestry Tasmania's vision for multiple-use forests. Forestry Tasmania maintains more than 70 visitor locations in state forests. Facilities are provided for a wide range of activities including bush walking, mountain and trail bike riding, horse riding, boating, canoeing, fishing, sight seeing, picnicking, camping and adventure activities.

Forestry developments include some of the State's main tourism attractions such as the Tahune Airwalk, Hollybank Treetops Adventure, Tarkine Forest Adventures and the Maydena Adventure Hub.

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The Forestry Tasmania Sustainability Charter (The Charter) applies to all state forest including forest reserves. Where Forestry Tasmania has joint venture arrangements with third parties in state forests, it does not oblige third parties to manage in accordance with the Charter. Forestry Tasmania will exercise its power and obligations in regard to such arrangements so that they are consistent with the Charter.

The aims of the Charter will also be applied to all other lands and forests for which Forestry Tasmania has responsibility for forest management, consistent with the objectives of the landowners. This includes public land such as the Buckland Military Training Area, and private land on which Forestry Tasmania owns forests.

This Charter does not prohibit, restrict or affect the exercise of a statutory power by a government department, state authority or a person.

### Introduction

Forestry Tasmania's major responsibility is to manage state forests for the best long-term environmental, economic and social outcomes, and to that end it seeks to meet or exceed nationally and internationally recognised criteria for sustainable forest management.

Consumers want to be sure they are using wood products from legally and sustainably managed forests. They look to places like Tasmania, where forests are harvested according to strict laws with high environmental standards and are certified by reputable international agencies.

Forestry Tasmania's forest management is regularly measured and audited against independent Australian and international certification standards.

Management planning is one of the ways we ensure our forests are sustainably managed for the long term and this Charter sets out key objectives and aims for the next 10 years.

Tasmania is Australia's most forested state and its location 240 km below the south-east corner of the mainland offers a temperate climate, outstanding natural beauty and a wealth of natural assets.

Forestry Tasmania is acutely aware of its responsibilities, and most importantly seeks to maintain the ecosystem and ensure the next generation of Tasmanians is handed on a healthy, productive and valuable forest estate.

With this in mind the Charter is aimed at fostering the growth of the state's forests over the next 90 years. It replaces seven district plans and will make information more transparent for, and accessible to, the community.

Forestry Tasmania decisions take into consideration and respect all the values Tasmanians place on the forest. The well-being of our forests also depends on applying the best available science for conservation, planning, harvesting and regeneration.

State forests (entrusted by Parliament to Forestry Tasmania) cover about 1.5 million hectares, or 22 per cent of Tasmania's 6.8 million hectare land mass. The remaining area of the state is made up of 2.7 million hectares (39 per cent) of private land and 2.6 million hectares of other publicly managed land, mostly national parks and conservation reserves.

The 1.5 million hectares managed by Forestry Tasmania contain 39 per cent of Tasmania's forests, half of which includes a network of formal and informal reserves to protect Tasmania's diversity of flora, fauna, soil, water and cultural heritage, while the other half is available for sustainable timber production. A brief summary of significant historical events relevant to the management of Tasmania's state forest is given in Appendix 1.

Sustainable forest management is the key driver for Forestry Tasmania's business and sustainably managed forests will both ensure longevity of the business and maintain the natural assets of Tasmania.

### Plan Area:

This Charter applies to all land managed by Forestry Tasmania, as outlined in Appendix 2.

### Performance Monitoring:

The Charter for the first time establishes more than 30 clear aims to drive Forestry Tasmania's sustainability agenda. Forestry Tasmania will use these aims to set annual targets for its management and staff.

Forestry Tasmania will annually review and assess the implementation of the Charter to ensure the aims and objectives are being met. FT will report on progress in its annual Sustainable Forest Management (SFM) Reports as well as state and commonwealth five-yearly reporting mechanisms such as the RFA Review and State of the Forests Report.

## Period of Charter

The Charter is intended to apply for 10 years from its approval by the Minister, but will remain in force until otherwise superseded by a new plan or revoked.

Forestry Tasmania wishes to thank those who generously contributed their time and expertise to the development of the Forest Management Plan during the consultative stages of its development.

Figure 1. Forestry Tasmania's Sustainable Forest Management Policy.

<b>Sustainable Forest Management Policy</b>
<p>Forestry Tasmania is an internationally competitive forest land manager responsible for the management of Tasmania's state forest resource.</p> <p>Forestry Tasmania is committed to continual improvement and ensuring that this resource is managed sustainably through forest management practices that are environmentally sound, socially acceptable and economically viable.</p> <p>Under this policy, Forestry Tasmania will:</p> <ul style="list-style-type: none"><li>• Conduct operations to meet or exceed all relevant Australian and Tasmanian environmental and forest management legislation, standards and codes</li><li>• Actively engage with stakeholders and neighbours and encourage them to provide feedback on Forestry Tasmania's progress in sustainable forest management</li><li>• Develop a Forest Management Plan that outlines Forestry Tasmania's strategic aims and goals</li><li>• Undertake and promote collaborative research to ensure operational practices are underpinned by sound science</li><li>• Maximise product recovery, minimise waste and implement measures that strive to prevent pollution as a result of forest operations</li><li>• Maintain a comprehensive forest management system that is externally certified against the ISO14001 and the Australian Forestry Standard (AS4708)</li><li>• Regularly monitor, audit, review and publicly report on our forest performance</li><li>• Clearly define and communicate environmental and forest management responsibilities to our employees and to support them with training and appropriate resources to ensure those responsibilities are fulfilled</li><li>• Encourage and facilitate compliance with environmental and sustainable forest management standards by suppliers, contractors, and the users of state forests</li></ul>

## Management Objectives

Forestry Tasmania has five key sustainability objectives in relation to state forest.

- Sustaining biodiversity and habitat
- Sustaining jobs for future generations
- Sustaining carbon stores, clean air, water and healthy forests
- Sustaining community access and heritage
- Sustaining science based stewardship

For each of these objectives, Forestry Tasmania has developed strategic aims that will guide its forest management for at least the next 10 years. Under the Charter, Forestry Tasmania will develop annual targets and work programs aligned with the strategic aims and will report on them and performance outcomes in annual Sustainable Forest Management Reports.

### 1 Sustaining biodiversity and habitat

Ecosystems evolve and change, and management systems must respond if environmental values such as biodiversity are to be protected and maintained. Ongoing research is improving the understanding of ecosystem processes and results in improved forest practices. Forestry Tasmania's management of environmental values includes its contribution towards the statewide Comprehensive, Adequate and Representative (CAR) reserve system, biodiversity, threatened species, communities and habitats, oldgrowth forests and giant trees.

#### 1.1 Reserve system

##### **Aims:**

**Maintain a reserve system in state forests in accordance with the Regional Forest Agreement and Tasmanian Community Forest Agreement.**

**Work with other forest managers to maintain Tasmania's comprehensive, adequate and representative (CAR) reserve system.**

##### **Background/Overview:**

The CAR reserve system is administered by a variety of forest managers (see Figure 2).

In state forests, the CAR reserve system is made up of formal reserves (known as forest reserves) and informal reserves. All reserves are zoned for protection under Forestry Tasmania's Management Decision Classification (MDC), which is described in Appendix 3.

Forestry Tasmania manages 212 formal forest reserves, totalling 222,000 ha. These reserves have been proclaimed by Parliament and are managed in accordance with the Tasmanian Reserve Management Code of Practice (RMCOP), 2003.

The informal reserves are also used to maintain CAR values identified in the Regional Forest Agreement (RFA) but can be modified to meet forest management requirements provided the overall level of protection of CAR values is maintained. All changes to the informal reserve system are reported in the five-yearly RFA review process and in the annual Sustainable Forest Management Report.

Since 2000/2001 Forestry Tasmania has added 100,000 ha to the informal reserve system to maintain CAR values.

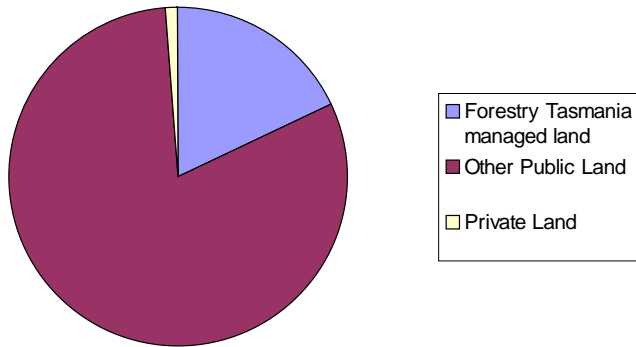
More than 53 per cent of state forest is managed for protection of environmental values, including more than 34 per cent within the CAR reserve system, and another 19 per cent outside currently identified areas of state forest for timber production.

Forestry Tasmania uses the MDC system and the RMCOP to identify and achieve management objectives and values specified in Schedule 3 of the Forestry Act 1920 for all forest reserves. Informal reserve values are identified and managed through the MDC system.

The RFA resulted in 40 percent of native forest and 95 per cent of high quality wilderness areas in Tasmania being reserved from timber harvesting. Since the establishment of the TCFA these figures have increased to 47 and 97 per cent.

Forestry Tasmania helps maintain values of CAR reserves managed by other agencies such as the Tasmanian Wilderness World Heritage Area (TWWHA) which is primarily managed by the Parks and Wildlife Service. We recognise the agreed outstanding universal values of the TWWHA, identified in the TWWHA Management Plan, and adopt management procedures that minimise risk from forest operations including harvesting, roads and burn offs adjacent to the TWWHA.

Figure 2. Distribution of Tasmania's CAR reserve system.



Refer to Appendix 4 for the composition of the statewide reserve system.

Refer to Appendix 5 for CAR values within forest reserves in the plan area.

Refer to Appendix 6 for Forestry Tasmania managed land contribution to statewide native forest community reservation.

## 1.2 Biodiversity

### **Aims:**

**Maintain a diversity of natural habitats and mixed age forests to support biodiversity across the forest estate.**

**Maintain the current proportion of native forest in state forests.**

### **Background/Overview:**

Forestry Tasmania fosters biodiversity in state forests through the CAR reserve system, the Forest Practices Code and by maintaining a permanent native forest estate.

In June 2007, Forestry Tasmania voluntarily chose to stop converting native forest to plantation in state forests and there has been no new broad scale clearing of native forest in state forests since December 31, 2006.

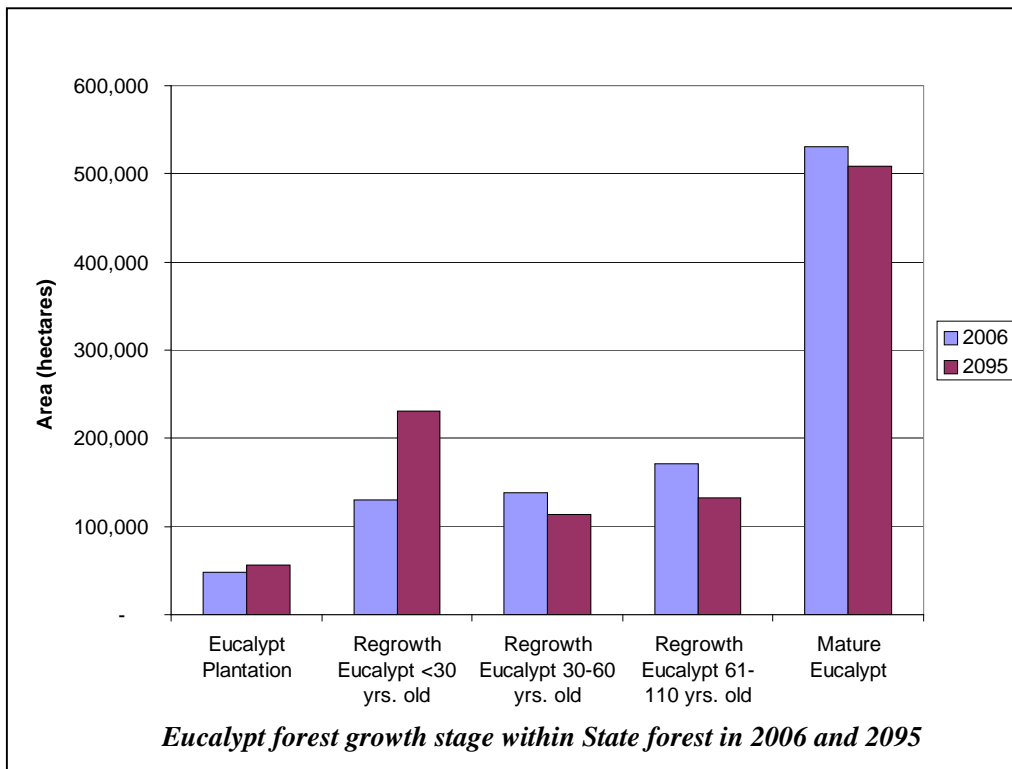
Forestry Tasmania maintains a variety of forest growth stages to support a diversity of habitats into the future. Recent modelling of future forest management (see section 2.2) indicates this diversity can be maintained, particularly in relation to mature forests. See Figure 3.

Forestry Tasmania participates in genetic conservation and management projects across the State.

This includes:

- Collaborative projects to conserve genetic resources of commercial plantation species, such as *Eucalyptus globulus*
- Monitoring exotic gene flow from plantation species into adjoining native forests
- Using local seeds to regenerate native forests
- Management of 53 per cent of state forest primarily for conservation

Figure 3. Eucalypt forest growth stage within state forest in 2006 and projected for 2095.



### 1.3 Threatened species, communities and habitats

#### **Aim:**

**Maintain viable populations of all existing animal and plant species and communities found in state forests.**

#### **This will involve:**

- **Increasing understanding of ecology and habitats of threatened species and communities and implementing appropriate management**
- **Active participation in the management of threatened species, communities and habitats**
- **Implementing specific strategies to protect threatened species and their habitats**

#### Background/Overview:

Forestry Tasmania manages threatened species, communities and habitats in accordance with the RFA/TCFA, threatened species legislation and the Forest Practices System. The statewide network of formal and informal CAR reserves includes viable examples of all 50 RFA forest and oldgrowth communities and provides the core protection for threatened species and communities. In addition the RFA nominates threatened communities which are protected in state forest wherever they are identified, while the regeneration of harvest areas to natural forest maintains general habitat conditions in the long term.

Threatened native forest communities lists can be found on the DPIW website ([www.dpiw.tas.gov.au](http://www.dpiw.tas.gov.au)) and are listed under Schedule 3A of the Nature Conservation Act 2002.

Specific protection is applied in state forests for threatened forest communities. Where required, strategic management plans are prepared in collaboration with the Department of Primary Industries and Water (DPIW) and the Forest Practices Authority (FPA) for the management of nominated threatened species and their habitat. An example is the management plan for *Hoplogonus simsoni* (Simsons stag beetle) on state forest in north east Tasmania.

At an operational level, threatened species, communities and habitats are managed in accordance with the Forest Practices System, developed by the Forest Practices Authority. Forestry Tasmania complies with the requirements of recovery plans developed under Australian and Tasmanian legislation. Threatened species, communities or habitats placed within the CAR reserve system, are identified with a unique special management zone (SMZ) code (refer to Appendix 7) to ensure their value is recognised into the future.

National Estate values are protected and managed through the statewide CAR reserve system and other protective processes including, where relevant, the Threatened Fauna Manual (Forest Practices Board, 1998), the Forest Botany Manuals (FPA, 2005), Threatened Fauna Advisor (FPA, 2002) and through the MDC system.

#### 1.4 Oldgrowth forests

##### **Aims:**

**Maintain a minimum of 251,000 hectares of oldgrowth in reserves in state forests (25 per cent of Tasmania's reserved oldgrowth) for conservation values.**

**Retain oldgrowth elements including large trees, stags, understoreys and logs across the forest estate.**

##### **This will involve:**

- Continuing the TCFA variable retention program
- Developing landscape assessment methods to prioritise management for restoration of oldgrowth elements in forests where they are now sparse

##### **Background/Overview:**

Oldgrowth forests are mature forest where the effects of disturbance are now negligible. They make an important environmental, social and economic contribution to Tasmania. They provide a range of tree sizes, large logs and trees with hollows. Their aesthetic and cultural values are important to the Tasmanian community, and they provide important high quality sawlogs and special species timber to the timber industry.

The supply of eucalypt sawlogs from oldgrowth forests will be progressively reduced from the current level of about 30 per cent of the legislated eucalypt sawlog supply of 300,000 m<sup>3</sup> per year to less than two per cent by 2030.

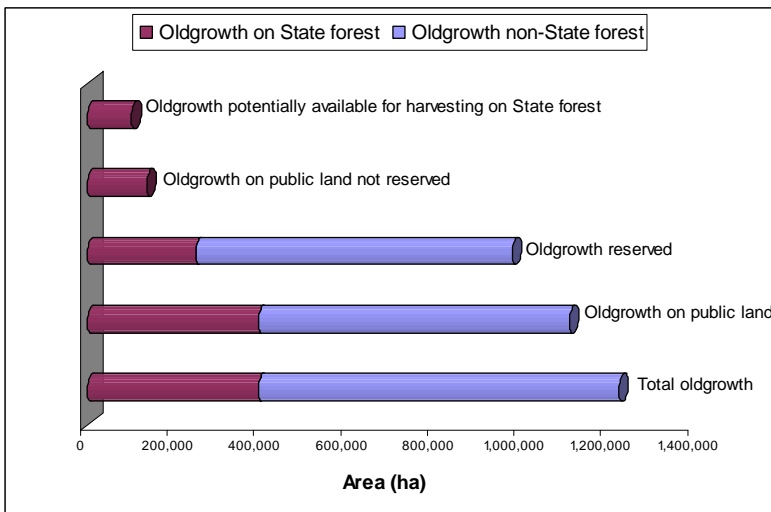
In recognition of the social and ecological value of oldgrowth forests in Tasmania, the 2005 TCFA specified oldgrowth management targets including:

- Additional reservation of oldgrowth forest (resulting in 79 per cent of oldgrowth forest reserved statewide)
- Reduced clearfelling of oldgrowth to 20 per cent of the annual harvest area of oldgrowth forest in state forests by 2010.

The additional reserves in state forests, resulting from the TCFA, have brought the total oldgrowth forest reserved on public land to 973,000 hectares.

Figure 4 shows that 102,000 ha or eight per cent of Tasmania's oldgrowth in state forests is potentially available for wood production. Of this, only about 40,000 hectares has been identified for routine wood production. This portion is vital for sustaining the supply of high quality eucalypt sawlogs. A further 35,000 hectares of oldgrowth is identified for low intensity wood production within Special Timber Management Units (STMUs). These areas are vital for sustaining the supply of specialty craft and furniture timbers. The remaining area lies outside currently designated wood production areas.

Figure 4. Status of oldgrowth in Tasmania.



Based on digital data as at 30 June 2006. Each bar includes the forest area in the bar above.  
Public Land = Land as defined in Section 4 of the Public Land (Administration and Forests) Act 1991 and land owned or leased by the Commonwealth.

While some protected oldgrowth will cycle naturally to young regrowth, the aging of protected mature forest may mean the extent of oldgrowth in reserves will increase over time.

To achieve the reduction in clearfelling, a strategy of 'mixed silviculture' in oldgrowth is being implemented, subject to a review of feasibility in 2008. Mixed silviculture includes:

- Variable retention and partial harvesting for most routine production areas
- Group and single tree selection in STMUs.
- Limited clearfell, burn and sow to be retained for smaller production areas in steeper country, where safety concerns have been raised by forest workers in relation to other methods of harvesting

Forestry Tasmania will continue to manage oldgrowth forests for conservation values in state forest reserves (see Appendix 6). Where wildfires occur within these reserves, the forest will remain unharvested and managed so it can eventually return to its oldgrowth condition.

## 1.5 Giant trees

### **Aim:**

**Identify and protect giant trees in state forests.**

### **This will involve:**

- **Maintaining the giant trees program in state forests**
- **Identifying strategies to encourage the development of new giant trees**
- **Broadening the species coverage of the giant trees program**

### Background/Overview:

Tasmania's giant trees are among the largest hardwoods in the world and are of national and international significance. Giant trees in Tasmania are identified as all those trees that are at least 85 metres tall or 280 cubic metres in volume.

Forestry Tasmania seeks to enhance the protection of giant trees and encourage their appreciation.

In 2003 Forestry Tasmania established the Giant Trees Consultative Committee ([www.gianttrees.com.au](http://www.gianttrees.com.au)) to provide independent advice on the protection, management and promotion of giant trees. The committee maintains a giant trees register, which records the location and measurement details of all known giant trees. The register currently includes more than 80 giant trees and more are being found each year. The known trees are in a variety of areas, with the majority in state forests. All known giant trees in state forests are zoned for protection under Forestry Tasmania's MDC system. Refer to Appendix 8 for a list of the top 10 giant trees.

## 2 Sustaining jobs for future generations

Ongoing jobs rely on sustainable forest management, which includes maintaining the productive capacity of the forest. To achieve this, Forestry Tasmania monitors the capacity of the forest to supply wood and non-wood products and services. It is estimated that the forest industry directly employs 6,300 Tasmanians and has an annual expenditure of between \$1.4 and \$1.6 billion (Schirmer 2008).

### 2.1 Wood products

#### **Aim:**

**Promote and support domestic processing and value adding of wood products.**

#### Background/Overview:

The forest industry is a major driver in the Tasmanian economy and Forestry Tasmania is committed to ensuring the supply of high quality sawlogs on which the sawmilling industry is dependent for its long-term security.

In 2006/2007 the estimated value of wood production from state forests, based on the price paid by Forestry Tasmania's customers for logs delivered "at the mill door", was \$237M. Of this, approximately 71 per cent came from native forests, four per cent from hardwood plantations and 25 per cent from softwood plantations. The estimated final value of wood products produced in Tasmania from these logs in 2006/2007, based on recovery and value of each product, was \$662M.

Tasmania's forest produce a diversity of wood products including eucalypt and pine sawlogs, veneer logs, peelers and pulpwood - with much of the resource used to support a vibrant sawmilling sector, rotary veneer mills and domestic pulp mills.

Forestry Tasmania encourages domestic processing, particularly in regional areas and directly invests in merchandising yards to centralise sorting and processing of forest products for improved value recovery.

Forestry Tasmania is committed to the Tasmanian Forest Industry Log Supply Charter, which requires signatories to maximise log value and minimise waste. Strategies include assessing logging residue after harvesting operations and audits of pulpwood to prevent sawlogs being used for lower value pulpwood.

Special species timbers such as blackwood, myrtle, Huon pine, celery-top pine and sassafras are also important for the Tasmanian timber industry and are used for furniture making, musical instruments, joinery and other craftwood products.

Other wood products including firewood, posts, poles, rails, droppers, shingles and chopping blocks are also sold from state forests to meet local community demand. Forestry Tasmania sells smaller amounts of these products from designated areas under a permit or contract system.

### 2.2 Sustainable yield

#### **Aim:**

**Maintain a sustainable supply of commercial timber.**

#### **This will involve:**

- Ensuring an on-going supply of wood products from state forests
- Adapting forest management to ensure a sustainable supply of 300,000 cubic metres of high quality eucalypt sawlogs
- Reviewing the sustainable high quality sawlog supply from Tasmania's state forests, on at least a five-yearly basis to ensure adaptation to emerging changes

#### Background/Overview:

As required under the Forestry Act, 1920 and confirmed in the RFA, Forestry Tasmania manages state forests to ensure an ongoing supply of 300,000 cubic metres of high quality sawlogs annually to local industry. Other wood products such as pulpwood and peelers are secondary products arising from sawlog harvest.

The sustainable yield of a forest is the level of commercial timber (or product mix) that can be maintained under a given management regime, without reducing the long-term productive capacity of the forest.

Forestry Tasmania's sustainable yield model is based on a 90-year period and has the following elements:

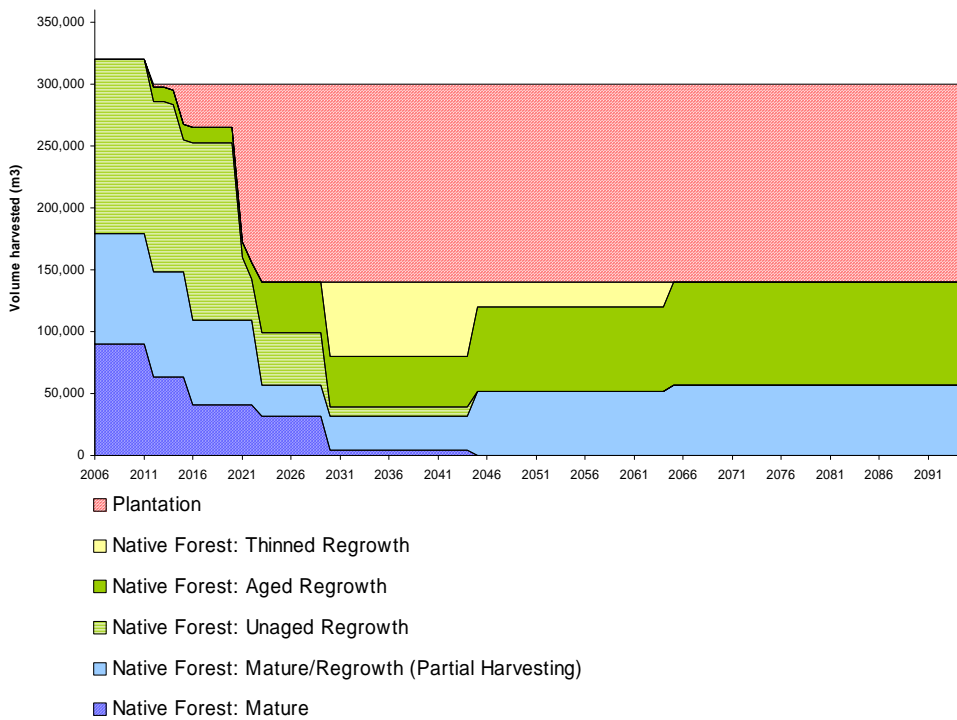
- An extensive network of forest inventory and growth plot measurements
- A sophisticated computer-based modelling and growth projection system
- Incorporation of environmental constraints
- Estimation of both native forest and plantation yields
- An external independent audit

Reviews of sustainable yield are undertaken at least every five years, as required by the RFA. Such reviews provide the opportunity for Forestry Tasmania, as stewards of the forest, to confirm whether regional yields are sustainable, and advise government accordingly. The most recent review (Forestry Tasmania, 2007) found the forests will grow faster than they will be harvested for the next nine decades, meaning there will be more forest by the turn of the next century than there is today. See Figures 5 and 6 for the 90-year view of timber yields.

Forestry Tasmania operational targets are determined by the sustained yield and include:

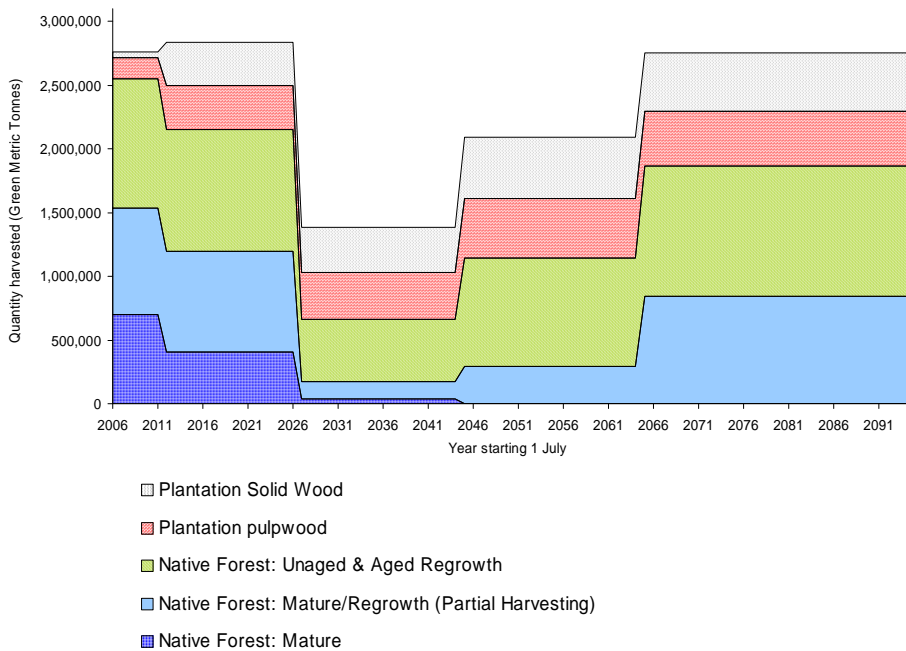
- Selecting and applying appropriate forest management systems
- Dispersing harvesting across the landscape
- Choosing when to harvest coupes
- Staging harvesting in a logical sequence

Figure 5. 2007 90-year view of high quality eucalypt sawlog sustainable yield from state forest (by forest type).



Source: Forestry Tasmania, 2007.

Figure 6. 2007 90-year view of pulpwood arising yield from state forest (by forest type).



Source: Forestry Tasmania, 2007.

### 2.3 Native forests

Forestry Tasmania's management is primarily based on native forest, which forms more than 80 per cent of the state forest estate. About 544,000 ha of native forest is designated for wood production. This area provides the majority of high quality eucalypt sawlogs and veneer logs, peeler logs and pulpwood as well as special timbers from non-eucalypt species.

The commercial native forest area includes lowland wet eucalypt forests, lowland dry eucalypt forests, high altitude eucalypt forests, rainforests and blackwood forests. The growing and management of these forests is guided by a series of native forest technical bulletins for each of the forest types.

Table 1. Native production forest on Forestry Tasmania managed land<sup>1</sup> by native forest silvicultural types.

Forest Type <sup>2</sup>	Production Forest (ha) <sup>3,4</sup>
Lowland wet eucalypt forests	322,000
Lowland dry eucalypt forests	107,800
High altitude eucalypt forests	40,100
Rainforests	67,600
Blackwood forests	6,600
<b>TOTAL<sup>5</sup></b>	<b>544,000</b>

1. Forestry Tasmania managed land includes state forest, commonwealth-leased crown land, and Forestry Tasmania plantations on private land.
2. Excludes RFA Priority Forest Communities and non-forest communities.
3. As at 30 June 2007.
4. Rounded to nearest 1000 hectares.
5. Figure in the total row is not the sum of the column, but the actual rounded total and excludes RFA priority forest and non-forest communities.

#### 2.3.1 Eucalypt forests

##### **Aim:**

**Ensure an ongoing long term supply of the highest quality eucalypt timbers from native forests.**

##### **This will involve:**

- **Regrowing all native forest areas after harvest**
- **Improving sustainable productivity through activities such as thinning**
- **Using rigorous quality standards to ensure optimal growth and harvesting of a range of forest types**

### Background/Overview:

The highest quality eucalypt timber supply has been, and will continue to be, sourced from native forests. Natural and managed native eucalypt forests typically regenerate with very high seedling densities. Intense competition for sunlight between young trees results in early natural shedding of side branches; with the straightest and tallest trees surviving to form the new forest. For the past two centuries most sawlogs have been sourced from mature eucalypt trees, greater than 110 years old. A significant transition to using regrowth trees commenced from about 1990. The trend has been towards smaller diameter logs which has challenged the sawmilling industry in developing improvements in processing technology to optimise recovery of sawn timber. Nevertheless native forest will continue to be the source of logs of dimension and wood quality that cannot be reproduced in plantations.

Native eucalypt forests are managed on rotations of sufficient length so the dominant trees are of sawlog size. The nominal rotation length is set at 90 years, but the actual rotations required will vary.

The management of eucalypt forests can be broadly split into partial harvesting and clearfelling systems. The majority of the annual harvest area is partial, based on the retention of a proportion of the existing trees. This applies to highland eucalypt forests and dry eucalypt forests, which generally have short open understoreys, and where a high level of disturbance is not required to promote regeneration.

Clearfelling is used for wet eucalypt forests with tall dense understoreys, where a high level of disturbance is needed to establish a new forest. However harvesting in these areas is increasingly retaining oldgrowth forest elements in each coupe for at least the next rotation. This method (known as variable retention) better emulates the natural regeneration process of infrequent wildfire, and leaves sufficient oldgrowth to allow slower growing species to persist and regenerate. It also helps meet the non-clearfelling targets set out in the TCFA (Forestry Tasmania, 2005).

There is increasing recognition of the value of oldgrowth elements in maintaining biodiversity in predominantly regrowth forests. Currently this occurs in streamside and other formal and informal reserves and wildlife habitat clumps. Further consideration will be given to strategies to restore such elements when harvesting regrowth forests that have low levels in the surrounding forest. Clearfelling and wildfire produce stands of predominantly even-aged regrowth, which, depending on stocking levels are thinned, typically at ages from 25-40 years, to concentrate stand growth on fewer stems so the length of time to grow a high quality sawlog is reduced. Thinning also allows an interim commercial harvest of pulpwood and peeler logs that would otherwise be lost to natural mortality.

Forestry Tasmania annually monitors and reports against quality standards developed for harvest outcomes, regeneration, and thinning. The review takes into account:

- Site establishment practices (primarily burning)
- The source of seed for regeneration
- Elapsed time between site preparation and sowing
- Effectiveness of browsing monitoring and control
- Regeneration success
- Tree retention levels for partial harvests
- Stem damage to retained trees in partial harvests

### **2.3.2 Special species**

#### **Aim:**

**Ensure an ongoing long term supply of specialty timbers.**

#### **This will involve:**

- **Managing commercial blackwood forests to provide the majority of the sustainable supply (about 10,000 m<sup>3</sup>/year) of blackwood sawlogs**
- **Recovering of all commercial special species timbers from harvested areas**
- **Providing a small, ongoing supply of specialty timbers, primarily from Special Timber Management Units (STMUs) to meet the needs of the Tasmanian fine timbers industry**
- **Marketing initiatives to enhance the value of Tasmanian specialty timbers**

### Background/Overview:

Special species timbers are prized for decorative and other specialised applications.

The main species are blackwood, myrtle, celery-top pine, sassafras, Huon pine, silver wattle, musk, horizontal and leatherwood.

Blackwood and silver wattle grow relatively quickly and are well adapted to large-scale disturbances such as wildfire. These species commonly occur in the understoreys of regrowth eucalypt forest. Blackwood is also the dominant species in the swamp forests of far north-western Tasmania.

Most other special species are very slow growing and occur predominantly in oldgrowth forests.

About five per cent of state forests, mainly areas of rainforest and wet eucalypt forests, have been designated as Special Timbers Management Units (STMUs) to provide a small, ongoing supply of special timbers to meet the needs of the Tasmanian fine timbers industry. Special species timbers are also supplied from the harvesting of wet eucalypt forests and small areas of rainforest outside of STMUs.

Table 2. Area of forest types within Special Timbers Management Units.

Forest Type	Area (ha)	Percentage (%)
Rainforest	37,100	54
Wet eucalypt forest	8,200	12
Dry eucalypt forest	3,900	6
King Billy pine forest*	1,400	2
Huon pine forest	1,300	2
Blackwood forest	1,200	2
Other forest	300	0
Non forest	15,900	23
<b>TOTAL</b>	<b>69,300</b>	<b>100</b>

\* Not harvested except for salvage, for example off the ground (dead), infrastructure development or fire killed areas.

The component of blackwood in eucalypt regrowth forests (outside of STMUs) can be significantly increased on suitable sites by fencing to exclude mammals from browsing the highly-palatable blackwood seedlings. Since 1985 more than 1500 ha of eucalypt/blackwood regeneration has been fenced and designated for blackwood production, primarily in the north-west of the State. The nominal rotation age is 70 years, which can be reduced by thinning treatments that concentrate stand growth on potential sawlog trees.

Blackwood swamps provide the core resource for blackwood sawlog supply. Areas with tea-tree understoreys are harvested by clearfelling whereas areas with myrtle understoreys are selectively harvested. Regenerated areas are fenced to exclude browsing animals and regrowth stands are managed on a nominal 70-year rotation.

STMUs are managed to produce a small sustainable supply of timbers such as myrtle, sassafras and celery-top pine as well as large-dimension eucalypt timber for special purposes and allow harvested stands to return to an oldgrowth condition within the planned rotation. Slower growing species and structures are retained within harvested stands, which precludes the use of clearfelling. Single tree and group selection (gaps up to two tree lengths wide) harvests are prescribed and the majority of the canopy is retained at each cutting cycle. Nominal rotation lengths are at least 200 years.

Small areas of Huon pine forest occur in STMUs. However more than 85 per cent of Tasmania's Huon pine is reserved. The main area for production is the heavily cut-over stands on the Teepookana plateau, south of Strahan. Supplies of Huon pine are also sourced from the stockpiled timber salvaged from the flooding of Lake Gordon in 1978. Dead and down timber, and trees in poor condition are recovered from previously cut-over stands, where possible retaining at least 10 seed trees per hectare. Seedlings are planted on sites that lack seed trees. No future harvest is planned because the available area and growth rates are so small that no regular yield of timber can be supplied. The objective is to maximise the recovery of useable timber and restore harvested areas so they remain as Huon pine forest.

Strategies for the sustainable supply of special species are constrained by the limited scale and value of the market for these timbers. Forestry Tasmania seeks to enhance the international appreciation and values of these unique timbers, to underpin more active investment into their future production.

## 2.4 Plantations

### **Aim:**

**Establish and manage plantations to maintain supply levels to industry.**

### **This will involve:**

- **Maximising the application of genetic improvement, pruning, thinning and fertilising to improve growth and wood quality**
- **Long-term management of the sustainable productivity of the land and trees**
- **Expansion of plantation estates, where opportunities exist, on land that does not involve the broad scale clearing of native vegetation**
- **Ensuring growth targets and silvicultural objectives are met by implementing quality standards monitoring**

### **Background/Overview:**

Plantations provide a range of valuable products to Tasmanian industry and for overseas export. Products manufactured from plantations in state forests include sawn timber, veneer, pulp, paper, reconstituted and engineered wood products. The *Pinus radiata* in softwood plantations provide sawn timber, veneer, posts, poles and long fibre pulp for newsprint production. Hardwood plantations are predominantly *Eucalyptus globulus* (Tasmanian Blue Gum) and *Eucalyptus nitens* (Shining Gum) which provide sawn timber, veneer, posts, poles and short fibre pulp which is highly suited to fine writing paper grades.

Eucalypts in plantations grow far more quickly than in native forests, typically about five times as fast on comparable sites. A significant area of hardwood plantations has been established since 1990, as part of an intensive forest management strategy to maintain high quality sawlog yields from a land base that has been progressively reduced by transfers of native forest from production to protection. Since the RFA and TCFA were implemented the importance of hardwood plantations' contribution to meeting the targeted 300,000 cubic metres of high quality eucalypt sawlogs has increased, as has their contribution to the supply of other products such as pulpwood and peeler logs. Forestry Tasmania stopped converting native forests to plantations in 2007, and this has limited opportunities for further expansion of the plantation estate.

Eucalypt plantations will not reproduce the size and quality of log available from native forests. The logs will be smaller, and fast grown, resulting in the need for new technologies for processing. The implementation of such processing technologies, including peeling and hew sawing, has already been initiated in Tasmania.

Forestry Tasmania works to ensure plantation operations are of a high standard and produce the most favourable growth and wood quality, while minimising waste and meeting environmental guidelines. Significant emphasis is given to achieving best production levels, including maximising the area of high pruned plantation and using thinning and fertilising to maximise the production of high quality sawlogs. Quality standards monitoring is carried out for site preparation, planting, fertilising, pruning and thinning operations and benchmarks are set for each operation type. Reviews are conducted annually to assess performance, and provide a feedback mechanism for improvements to operational techniques and monitoring standards.

Research is strongly focussed on environmental impacts of plantations including soil sustainability, water quantity and quality. The impact of plantations at the local and landscape scale is also an important consideration in establishment, maintenance and harvesting operations. The Cooperative Research Centre (CRC) Forestry and University of Tasmania's Landscape Logic project are contributing to the investigation of these impacts. Research also examines tending, nutrition and genetic improvement as means to improve productivity.

The majority of softwood plantations in state forests are jointly owned with GMO Renewable Resources and managed through Taswood Growers. Softwood plantations under full Forestry Tasmania management control are mostly on the West Coast and King Island. There are a number of ownership arrangements for eucalypt plantations controlled by Forestry Tasmania (refer to Table 3).

Table 3. Forestry Tasmania's plantation ownership.

Ownership	Hardwood (ha)	Softwood (ha)
Forestry Tasmania state forest and crown land	28,174	3,862
Forestry Tasmania Joint Venture state forest and crown land <sup>1</sup>	4,789	48,815
Forestry Tasmania Joint Venture private land	228	0
Tassie Trees Trust state forest <sup>2</sup>	1,510	305
Forestry Tasmania private land <sup>3</sup>	828	0
Private state forest	14,526	9
<b>TOTAL</b> <sup>4</sup> As at June 30, 2007	<b>50,055</b>	<b>52,992</b>

1. Includes the softwood plantations that are 50 per cent owned by GMO Renewable Resources.
2. Tassie Trees Trust plantations are mainly jointly-owned with private growers, but include small proportions owned solely by FT.
3. Includes recent commercial acquisitions.
4. Totals are rounded actual total.

## 2.5 Non-wood products and services

**Aim:**  
**Manage state forests to ensure an ongoing supply of leatherwood honey and other non-wood products and services.**

### Background/Overview:

#### *Apiary*

The apiary industry employs more than 150 people on a permanent or seasonal and part-time basis. However of the 250 registered beekeepers, only eight per cent are regarded as fully commercial or semi-commercial operators.

The vast majority of beekeepers in Tasmania depend on land managed by Forestry Tasmania for access to leatherwood.

Leatherwood honey accounts for approximately 70 per cent of Tasmania's average annual honey production of 1000 tonnes.

Leatherwood trees are predominantly in mixed wet forest and mature rainforest, with more than 60 per cent in conservation areas reserved from harvesting, and where access for apiary sites is limited. Leatherwood provides crucial winter stores for bees prior to the onset of the pollination season. Pollination by managed bees provides a valuable contribution to Tasmania's agricultural and horticultural sectors, and particularly for a number of significant crop species.

An Apiary Working Group, consisting of representatives from Forests and Forest Industries Council (FFIC), Tasmanian Beekeepers Association (TBA), Crop Pollinators Association and Forestry Tasmania, examines issues facing the beekeeping industry in Tasmania with particular emphasis on leatherwood. The group is responsible for the "Guidelines for Beekeeping in State Forests" and for enhancing the harvest planning processes for the protection of leatherwood-rich forest.

Under the TCFA, funding was provided for initiatives to support access to and management of selected areas of special timbers management units in state forests for selective harvest, and to provide beekeepers with rotating access to apiary sites to maintain sustainable supplies of leatherwood honey.

A recent study into the Tasmanian leatherwood nectar resource (Leaman *et al.* 2008) predicted that the majority of the resource will be secure from forestry operations over the long-term.

#### *Mineral Resources*

Exploration and development of mineral resources on multiple use forest land may be consistent with Forestry Tasmania's functions to manage for wood, natural, cultural and recreational values. Mining, quarrying and mineral exploration are subject to rigorous approval processes and control by the Department of Infrastructure, Energy and Resources (DIER) which administers the Mineral Resources Development Act 1995<sup>2</sup>.

The Mineral Exploration Code of Practice (Bacon 1999) and the Quarry Code of Practice (Department of Primary Industries, Water and Environment 1999) provide guidelines for mining, quarrying and mineral exploration activities.

<sup>2</sup> Mining is excluded from a number of forest reserves (See Appendix 5)

In conservation and other sensitive areas proposals for these activities are referred to the Mineral Exploration Working Group which includes representatives from DIER, DPIW and Forestry Tasmania. Its function is to investigate the impact that any proposed works programs may have on special values, and advise of any conditions to be placed on activities so the values of these areas are not permanently or adversely affected.

Gravel pits in state forests are subject to Forest Practices Plans under the Forest Practices Act 1985 and the Quarry Code of Practice and Forest Practices Code guides the operation and rehabilitation of the gravel pits. Where a gravel pit produces 5000 cubic metres or more per year or a crushing premises processes more than 1000 cubic metres per year Forestry Tasmania must notify the Department of Environment, Parks, Heritage and the Arts which administers the Environmental Management and Pollution Control Act 1994.

#### *Leases and Licences*

Forest leases may be issued to provide exclusive use of an area for a significant investment or infrastructure such as a dam, radio site, tourism infrastructure or shooting range. A lease is generally required wherever there is infrastructure owned by another party in a state forest. Land uses covered by leases include long-term grazing, buildings, communications sites, dams, energy generation, pipe/powerlines, plantations, property management, hunting and recreation/tourism.

Forest licences provide for secure but non-exclusive use of an area. For example, a licensee who holds a licence for an area for game management, has exclusive rights for game management on that area. However, other parties may still use the area for purposes other than hunting. A licence is only appropriate where no infrastructure exists. Licences may be issued for purposes such as commercial tours, road access, game management and short-term grazing.

Refer to Appendix 9 for a summary of leases and licences in state forest.

### 3 Sustaining carbon stores, clean air, water and healthy forests

The maintenance of ecosystem health and vitality is important for the good management of potential threats such as fire, weeds, pests and diseases. Perhaps the greatest potential threat to ecosystem health is that of human induced climate change due to greenhouse gas emissions, particularly carbon dioxide. Forestry Tasmania monitors forest health to help prevent significant damage to the nature and condition of state forests, and is committed to the rehabilitation of degraded forests. Forestry Tasmania's approach includes an environmental monitoring program and management to reduce the impacts of wildfire, weeds, pests and diseases.

#### 3.1 Carbon and climate change

##### **Aims:**

**Manage state forests for long term carbon storage and provide a sustainable source of products which contribute to locking up carbon and reducing emissions.**

**Monitor emerging climate change scenarios and trends and adapt forest management practices.**

##### **This will involve:**

- **Combining commercial timber harvesting with re-establishment to ensure any losses in carbon are offset by the build-up of carbon in the newly established forest**
- **Taking appropriate measures to protect state forests against wildfires, pests and diseases that can result in the substantial release and loss of carbon**
- **Adopting and annually reporting on nationally agreed approaches and new technologies to account for and measure the total amount of carbon stored**
- **Managing forests sustainably so that harvest is less than or equal to growth, and forest growing stock is maintained in the long term**
- **Promoting the use of wood products and the development of renewable biomass energy**

##### **Background/Overview:**

There is increasing concern about the impact of carbon dioxide emissions on climate change including temperature, rainfall, sea levels and ocean currents. The global carbon cycle has been substantially altered by human activity, including the burning of fossil fuels and deforestation. Climate change could also potentially affect many forest attributes, including species distribution, growth rates, fire frequency and intensity, water yields and the incidence of pests and diseases.

Forest practices may need to be modified to accommodate climate change. Predictions for climate change in Tasmania vary, especially for temperature and rainfall, and will improve over the life of the plan. Emerging predictions and trends will need to be evaluated for their implications for a whole range of forest practices including management of fire, pests and diseases, selection of plantation species and modelling of growth and yield.

Forests are important to the environment because they act as a carbon sink (a place where carbon accumulates and is stored). Forests exchange carbon dioxide with the atmosphere through photosynthesis, respiration, decomposition and emissions associated with disturbances like fire, insect defoliation and timber harvesting (see Figure 7). Net changes in forest carbon stocks determine whether a forest ecosystem is a net source or a net sink for atmospheric carbon.

The state forests are composed of many forest types, with a diversity of structures and ages, storing various amounts of carbon. Some may be carbon sinks and some carbon sources. When forests are harvested, much of the carbon is taken away in products, or remains in the forest as roots, soil carbon and coarse woody debris, even after regeneration burning.

Forestry Tasmania has been actively pursuing methods that will provide an estimate of the amount of carbon locked up in state forests, and carbon storage in wood products taken from the forests.

Figure 8 provides a broad overview of the estimated amount of carbon stored in the different components of state forests, projected over 50 years of forest management. For more information refer to MBAC Consulting Group (2007).

Overall carbon stocks are generally being maintained, and will increase in the longer term. Tasmania has set a target of 60 per cent reduction in carbon dioxide emissions by 2050. The projected increase in carbon stocks in state forests by 2050 will offset, on average, about 24 per cent of Tasmania's annual emissions between 2008 and 2050, at current levels. The use of wood products also results in overall lower greenhouse gas emissions than most alternatives such as concrete and steel (see Figure 9). In addition, if harvesting and log processing residues are recovered for energy, they can replace fossil fuels thereby eliminating some atmospheric emissions that would otherwise have resulted. Emissions associated with Forestry Tasmania's offices and field operations are very small in comparison to changes in stored carbon in the forest.

Figure 7. Carbon cycle within the forest.

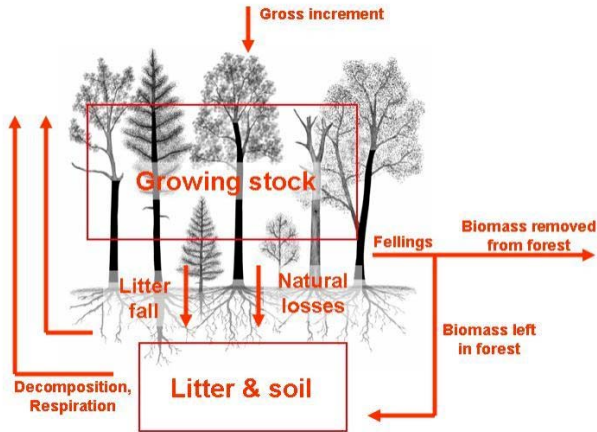


Figure 8. Overview of estimated carbon stored in state forests.

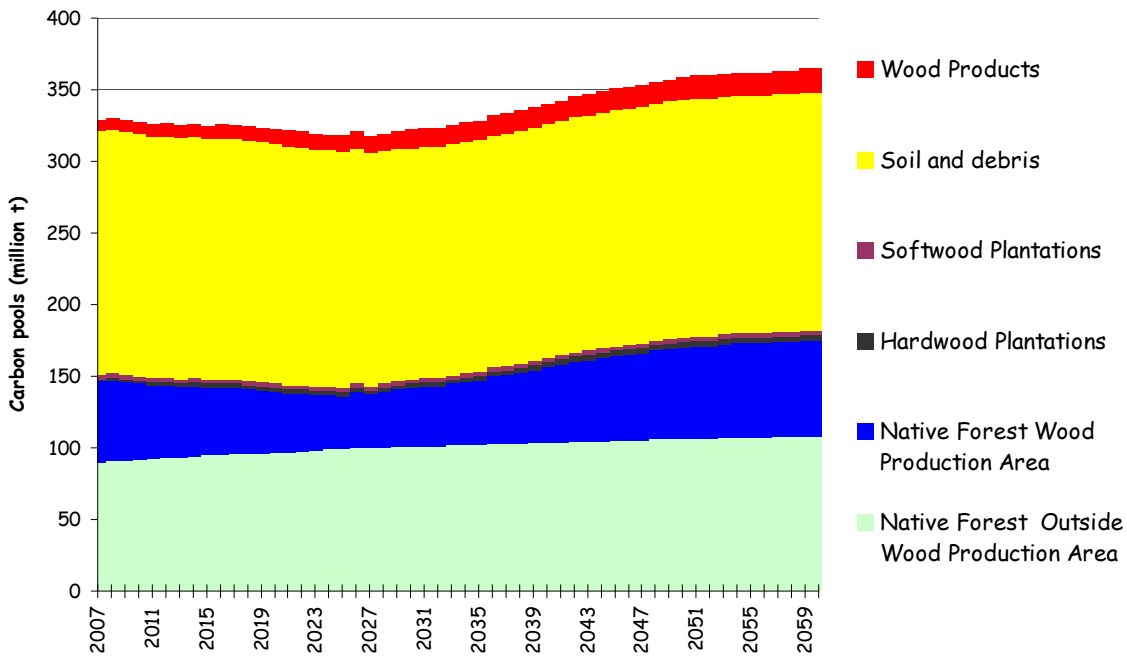
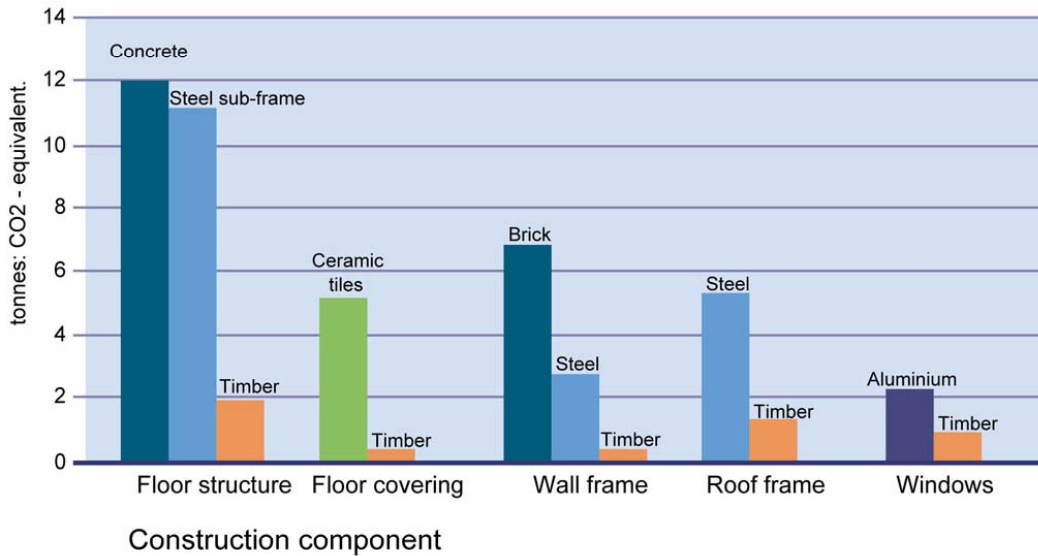


Figure 9. Greenhouse gases emitted in the manufacture of building materials used in a range of construction components for a single storey house.



Source: Forests, Wood and Australia's Carbon Balance report, Forest and Wood Products Australia, 2007.

Further research is needed on the effects of natural aging of oldgrowth eucalypt forests, wildfires, planned burning, soil carbon levels and coarse woody debris on carbon stocks.

Carbon trading is in its infancy, and the parameters for an Australian emission trading system are still being determined. Forestry Tasmania will actively participate in deliberations towards a sound basis for any inclusion of natural and planted forests within that system.

### 3.2 Air quality

#### **Aim:**

**Reduce the impact of planned burning on air quality.**

#### **This will involve:**

- **Conducting burns within appropriate meteorological and site conditions**
- **Developing biomass energy options for the use of forest residue fuels**

#### Background/Overview:

High levels of particulate matter are the main contributor to poor air quality in Tasmania.

Particulate matter is created by wood heaters, vehicles and industry emissions, backyard burning, planned burning by the agricultural and forest industries as well as wildfires.

The 2006 Tasmanian Air Quality Strategy shows regeneration burns, fuel reduction burns and wildfires account for two to three per cent of reported particulate matter in Launceston and Hobart.

Planned burns to reduce fuel loads on the landscape and minimise risks to human life and property are undertaken throughout Tasmania on private land and state forests each autumn and/or spring. They contribute to the life cycle of many native vegetation communities. Neighbours and the general public are notified before burning takes place.

Forestry Tasmania conducts two types of planned fuel reduction/ecological burns in state forests:

- **Low intensity:** to reduce fuel loads and provide protection to communities and assets from the potential impacts of wildfire and maintain the health of fire dependent vegetation communities. The smoke typically remains near the ground and can affect ground level air quality, depending on wind direction.
- **High intensity:** to stimulate the regeneration of eucalypt forests (usually wet forests) by clearing residues and revealing a seedbed for seed germination. These burns are designed to generate high temperatures, creating

intense convection currents. This ensures the smoke forms a tall column or plume that travels into the upper atmosphere and disperses.

Forestry Tasmania uses a range of measures to address community concerns and reduce the impacts of smoke from planned burns on neighbours. They include:

- Limiting the number of burns likely to impact on a particular region in any one day
- Selecting appropriate weather conditions, such as unstable atmospheres (for high intensity burning) and particular upper level wind direction, which will help avoid populated areas
- Avoiding burning in high impact areas on particular days when outdoor public events are scheduled
- Consulting with neighbours and other affected parties prior to burning
- Improving fire education at the local level
- Continuing support for research into systems of alternative vegetative fuel management
- Supporting current research into smoke plume predictive modelling to better forecast and avoid smoke impacts

Information on the location and nature of burning operations can be found on the planned burns website at [www.plannedburnstas.com.au](http://www.plannedburnstas.com.au). The site has a large amount of information and is updated by 10am on the days when burning is planned.

It is recognised smoke may cause particular concern for some members of the community. Smoke can seriously affect the well-being of people with asthma, emphysema and other respiratory conditions.

Fuel reduction burns are intended to support the greater good of the community, but it is also important to ensure the risk of irritation is reduced for those suffering from respiratory illnesses. In the six years to June 2007, NEPM air quality standards were exceeded 91 times in Tasmania. On only four occasions was it likely that burning by Forestry Tasmania was a contributing factor.

Apart from the measures outlined above, Forestry Tasmania has been actively exploring other ways to reduce the amount of smoke emitted through planned burning. With growing global interest in renewable energy there is an emerging opportunity to use forest residue fuels for energy generation.

### 3.3 Water, soils and geodiversity

#### **Aims:**

**Ensure availability of clean water from state forests.**

**Protect soil values and geodiversity.**

#### **This will involve:**

- **Maintaining water quality above accepted standards, where permitted by natural characteristics**
- **Conducting research into water quality and quantity to provide greater understanding of the effects of forest operations and to provide management solutions**
- **Developing planning tools that incorporate the effect of management options on water use by forests**
- **Improving mapping and data systems including for important soil values and geological, geomorphic and karst features and systems**
- **Establishing long-term soil monitoring plots**

#### **Background/Overview:**

State forests are an important source of clean water for a number of rural communities and cities throughout the state. Waterways within state forests are also an important habitat for many aquatic species.

Forest operations can impact the quantity of water flowing into streams over time primarily through their influence on the density and age of vegetation, and quality can be affected by stream crossings and impacts on soil. Wildfire can also have a serious impact on water quality and quantity and Forestry Tasmania works towards minimising its adverse environmental and social impacts. Water yield from forested catchments can vary with many factors, including season of the year, drought conditions or recent rainfall, wildfire and recovery from wildfire, forest type and age, and forest operations. Generally, the impact of forest operations is very small, or undetectable, except in sub-catchments when a large proportion of the area is harvested or re-established at one time.

Forestry Tasmania recognises the need to reduce as far as possible the impacts of forest operations on water quality and quantity. This is done in line with state and national policies, guidelines and strategies such as the National Water

Initiative, 2004; State Policy on Water Quality Management, 1997; Agricultural and Veterinary Chemicals Act, 1995; and with reference to the needs of downstream water users and ecosystems.

The Forest Practices Code (2000) sets out prescriptions and guidelines to protect water values during forest operations. These include protection through streamside reserves and guidelines for harvesting in water supply catchments.

Where possible Forestry Tasmania avoids the use of chemicals in state forests, particularly in the regeneration of native forests. A comprehensive water sampling program is used to monitor the effectiveness of management practices to prevent contamination of water.

Soils are the basis for all forest growth. The Forest Practices Code, and Brown and Laffan (1993), outline the requirements and guidelines for the conservation and management of soils in state forests.

Tasmania has a wide range of landforms, geomorphic systems and geological features which are listed in The Tasmanian Geoconservation Database, administered by DPIW. The database identifies geological, geomorphological (landform), and pedological (soil) sites, features, areas and systems considered to be of significant conservation or heritage value. A variety of strategies are employed to manage these values. Forestry Tasmania manages karst systems and features in accordance with the Forest Practices Code and Kiernan (1990, 2002).

### 3.4 Weeds, pests and diseases

#### **Aims:**

**Control weeds, pests and diseases to protect state forests.**

**Avoid use and minimise risks of chemical control methods.**

#### **This will involve:**

- **Planning and undertaking annual forest health monitoring programs**
- **Participating with other agencies in the strategic control of weeds, pests and diseases**
- **Applying Integrated Pest Management (IPM) strategies that use a combination of biological, cultural and genetic pest control methods**
- **As a last resort, using environmentally benign pesticides, where required.**

#### **Background/Overview:**

Intervention may be required to protect state forests from the adverse effects of weeds, pests and diseases.

Exotic weeds, pests and pathogens pose the greatest threat to state forests because they don't have natural enemies and native host species have not had the opportunity to develop resistance to them.

List A in Tasmania's Plant Quarantine Act of 1997 identifies exotic pests and pathogens that would pose the greatest threat if they became established in Tasmania. Preventative surveillance is provided by the Department of Primary Industries and Water at ports and by Forestry Tasmania in state forests.

Exotic species that have become established in the state are being managed to either limit their spread or maintain their populations to below damaging levels. Invasive exotic weeds such as gorse (*Ulex europaeus*), pampas (*Cortaderia* spp.), ragwort (*Senecio jacobaea*) and Spanish health (*Erica lusitanica*) have limited distribution in state forests and when detected, infestations are contained. While the introduced root-rot pathogen *Phytophthora cinnamomi*, is widely distributed throughout Tasmania it has a patchy local distribution and many areas of high conservation value remain free from it. These areas are identified in the Management Decision Classification system with a Special Management Zone for *Phytophthora* management area and are protected from the accidental introduction of *P. cinnamomi* by safeguards in the Forest Practices System.

Native species of weeds, pests and diseases generally pose little threat to state forests. Their populations are contained by natural enemies and their native hosts have usually evolved genetic resistance which limits damage. Outbreaks capable of causing large scale damage occur periodically but the forests usually recover over time. Damage by some native pests/pathogens can even assist regeneration. Management to limit damage from native species usually involves assisting host plants to avoid or recover from damage. Annual surveillance is undertaken in areas of high value in state forests to detect damaging outbreaks or changing pest status on native species.

A small number of native species assume pest status, and regularly reach populations that cause significant damage, primarily for plantations and young regeneration. They include the eucalypt leaf beetle (*Paropsisterna bimaculata*), the

brushtail possum (*Trichosurus vulpecula*), Tasmanian pademelon (*Thylogale billardierii*) and Bennett's wallaby (*Macropus rufogriseus*). Management to reduce populations of such native pests to below damaging levels may be required in areas containing high production or conservation values, such as plantations or populations of rare or threatened species. Browsing management can include trapping, fencing, shooting, repellents and tree guards. Specific monitoring programs have been developed to help determine when management is needed to reduce pest species populations.

As a general rule pests or pathogen management conforms with the objective of reducing chemical use in state forests. Native forest management is a chemical free process making wood produced from native forests an organic product. Forestry Tasmania ceased the use of Atrazine in 1995, Simazine in 1997 and 1080 in 2005.

### 3.5 Fire

#### **Aims:**

**Use controlled fire to emulate natural conditions and achieve ecological, silvicultural and forest health benefits.**

**Reduce the risk and impact of wildfire.**

#### **This will involve:**

- **Maintaining an appropriate fire fighting capacity**
- **Being a lead agency in statewide wildfire suppression and management**
- **Working cooperatively with other Tasmanian agencies to actively manage fuel loads and hazards to protect human life, property and forest resources and other public assets**
- **Communicating Forestry Tasmania's burning program to the community**
- **Managing Forestry Tasmania's burning program to minimise social impacts**

#### Background/Overview:

Fire is a natural part of the forest life cycle but can be a threat to human life and property. It can also have both an advantageous and deleterious impact on ecosystem health and vitality.

Forestry Tasmania has the authority to control or extinguish fires within three kilometres of the boundary of any area of state forest.

Protection of life, property and forest resources and other public assets is the priority for Forestry Tasmania when fighting wildfires. Forestry Tasmania is also committed to cooperating with other fire and land management agencies in Tasmania.

Forestry Tasmania aims to:

- Minimise the occurrence and impacts of wildfires
- Minimise the severity of wildfires by reducing fuel loads on the landscape and possible impact on human life and assets
- Maximise Forestry Tasmania's readiness to respond to wildfires
- Minimise the severity of wildfires through coordinated, effective and efficient responses
- Promote recovery after fires

Fire prevention techniques include reduction burns, slashing or ploughing, fire break maintenance and involvement with local fire management committees.

Forestry Tasmania also conducts burns to optimise conditions for eucalypt regeneration following harvesting and for ecological purposes in areas where fire is essential for maintaining the vigour and diversity of plant species. Fire frequency, intensity, season and patchiness are important when using fire as a tool for ecological purposes. On average, Forestry Tasmania annually conducts around 16,000 ha of planned burning. This includes:

- 7000 ha of high intensity and 5000 ha of low intensity burning of harvest residues
- 4000 ha of fuel reduction and/or ecological burning

Wildfires in state forests burn, on average, 10,000 ha per year, with 5000 ha of this resulting in severe fire damage.

## 4 Sustaining community access and heritage

The Tasmanian community can expect public access to enjoy state forests for multiple uses and to know that significant heritage values will be protected. Forestry Tasmania provides tourism and recreational opportunities and protects significant Aboriginal and historic cultural heritage sites as well as natural landscape values. It maintains a comprehensive safety management system so that state forests are a safe environment for workers and visitors. Forestry Tasmania seeks to identify and meet the needs of stakeholders, including neighbours, and maintain constructive relationships with the broader community.

### 4.1 Tourism and recreation

#### **Aims:**

**Encourage active recreation.**

**Promote opportunities for commercial tourism ventures.**

#### **Background/Overview:**

Tourism and recreation are keystones in Forestry Tasmania's vision for multiple-use forests. The plan area provides a broad range of opportunities for recreation and tourism in a variety of settings within managed forests. Forestry Tasmania maintains more than 70 visitor locations in state forests. Facilities are provided for a wide range of activities including bush walking, mountain and trail bike riding, horse riding, boating, canoeing, fishing, sight seeing, picnicking, camping and adventure activities. Refer to Appendix 10 for a summary of activities and facilities available in state forests.

In addition to visitor locations, a number of major tourism attractions as well as some regional and niche experiences have been developed within the plan area. While they are commercially based, the experiences also provide social and economic benefits to local communities. Forestry Tasmania has developed recreation and tourism partnerships with various groups and organisations throughout Tasmania. It also provides the land for various community recreation facilities including walking tracks, picnic areas, dirt bike tracks, mountain bike tracks, gun clubs and motocross clubs.

On 19 September 2003, Tasmanian forestry and tourism leaders signed a protocol to work together to minimise any negative impact of forestry operations on visitors' experiences. The protocol covered aspects of planning (consultation), smoke management, protecting view fields, log trucks and chemical use. Forestry Tasmania remains committed to the implementation of this protocol.

Forestry Tasmania also supports sporting activities including car and motor bike rallies, orienteering, adventure racing, horse riding, mountain biking and rogaining. For more information on area specific tourism and recreation opportunities in state forests, visit [www.forestrytas.com.au](http://www.forestrytas.com.au).

### 4.2 Community access and traditional activities

#### **Aims:**

**Provide public access to state forests.**

**Provide for traditional activities.**

#### **Background/Overview:**

Roads, tracks and fire trails provide access for a range of forest management and other activities. Forestry Tasmania generally permits the public to have right of access to most roads and tracks in state forests. However, public safety and other forest management issues may result in certain roads and tracks being closed either on a temporary or permanent basis. In addition, areas of state forests may be leased for purposes such as grazing in which case the permission of the lessee must be obtained before entering the land. Access is at the discretion of the relevant Forestry Tasmania district forest manager.

Forestry Tasmania recognises the value of local council roads in achieving its forest management objectives and pays rates to local government on its commercial forest land. Forestry Tasmania and the forest industry annually consult with local government on proposed three-year plans of operation. Meetings with local government and the forest industry take place at regional locations across the State and focus on the projected volume of log truck traffic and the roads to be used. This often results in changes, modifications or restrictions to some roads, and can result in amendments to the three-year plan. This process also allows for councils to plan for road maintenance including bridge upgrades, road grading and gravelling.

Forestry Tasmania also provides access to state forests for traditional activities including hunting and fossicking.

### *Hunting*

Hunting can be undertaken in state forests under the Forestry Act 1920 providing the hunter has a firearms or game licence and approval from the relevant Forestry Tasmania district forest manager. "Game" is considered to include pheasants, wallabies, deer, quail and ducks. Possums may also be hunted in state forests under permit from DPIW.

Forestry Tasmania manages hunting at three levels:

- Property Based Wildlife Management Plans (PBWMP) have been developed in conjunction with the DPIW Game Management Services Unit and hunting organisations, where there is a recognised need for sustainable game management under a set of agreed conditions.
- Forestry Tasmania can also issue Game Management Licences or Leases for state forests. These are generally smaller scale than the PBWMP and are between Forestry Tasmania and hunting groups or organisations.
- Hunting may also occur that is not under a PBWMP or Game Management Licence or Leases.

Entry to some areas of state forests for hunting may be restricted due to forest management activities, or conflicting site values such as threatened species. Under this Forest Management Plan Forestry Tasmania may limit or exclude particular recreational activities, including hunting, at any time. This will be at the discretion of the relevant Forestry Tasmania district forest manager.

### *Fossicking*

Under the Mineral Resources Development Act 1995 there are six areas of state forest where fossicking can occur. They have been identified for the use of fossickers and gem and mineral collectors. However normal forest management activities can still occur on these sites.

Fossicking outside the designated areas is illegal without a prospecting permit.

Entry to some fossicking areas in state forests may be restricted at the discretion of the district forest manager due to forest management activities. Mineral Resources Tasmania (2005) sets out the guidelines and information on fossicking and fossicking areas.

## **4.3 Health and safety**

### **Aim:**

**Promote safe work practices and safe use of state forests.**

The health and safety of employees, contractors and the general public when in state forests is of the highest priority for Forestry Tasmania. A comprehensive safety management system has been implemented for employees based on Australian Standards. The system underpins stringent safety performance measures, which are updated annually and reviewed quarterly by senior management.

Forestry Tasmania's safety management system ensures:

- Work activities are assessed for safety hazards and risks
- Visitor sites are assessed for safety hazards and risks
- Relevant safety legislation, standards and codes of practice are identified and complied with
- Safety incidents are investigated, and corrective and preventative action is undertaken

As a result, recent Lost Time Injury Frequency Rate (LTIFR) trends indicate improvements in safety performance. Risk management helps to ensure the health and safety of employees, contractors and the general public and involves identifying potential hazards and developing "controls" (practices, devices or actions) to minimise risks.

#### 4.4 Aboriginal and historic cultural heritage

**Aims:**

**Identify, protect and maintain Aboriginal and historic cultural heritage values in state forests.**

**Seek active consultation with the Aboriginal community to develop opportunities for collaborative management of Aboriginal sites and values.**

**Background/Overview:**

Aboriginal and historic cultural heritage management is a vital part of maintaining natural, cultural, social, religious and spiritual values and in state forest is protected under the Aboriginal Relics Act 1975, Historic Cultural Heritage Act 1995, Forest Practices Act 1985 and Forest Practices Code 2000.

Cultural heritage sites are managed under the Forest Practices Code and the principles of the Burra Charter (The Australian ICOMOS Charter for places of cultural significance), which provides fundamental strategies for the conservation of cultural heritage values. Where appropriate, existing guidelines are supplemented by direct consultation with the Forest Practices Authority and with the Tasmanian Aboriginal Land and Sea Council (TALSC) and other traditional land user groups.

Known and new cultural heritage sites in state forests are specifically recognised in the management decision classification system and special management zones specific to the nature of the sites. Forestry Tasmania also uses a system of archaeological potential zoning maps (McConnell 1995) to assess the probability of Aboriginal sites in state forests. All new Aboriginal and historic cultural heritage sites identified in state forests are submitted to the relevant divisions of the Department of Environment, Parks, Heritage and the Arts (DEPHA), for inclusion in statewide databases.

Forestry Tasmania undertakes collaborative projects with Tasmanian Aboriginal groups, particularly TALSC. This includes joint management of significant sites identified in state forests, promotion of Aboriginal culture, including arts and crafts, at Forestry Tasmania tourism sites and exhibition venues.

In order to foster awareness of Aboriginal sites and values, Forestry Tasmania collaborates with TALSC in the development and delivery of cultural awareness training for Forestry Tasmania staff. Forestry Tasmania has also developed an Aboriginal employment strategy, which includes cadetships and other employment opportunities.

Forestry Tasmania will continue to liaise and consult with Heritage Tasmania and the Forest Practices Authority on the management of historic cultural heritage values in state forests and the Aboriginal Heritage Office, Forest Practices Authority and TALSC on the management of Aboriginal values in state forests.

#### 4.5 Landscape and visual amenity

**Aim:**

**Protect regional, rural and natural landscape values.**

**Background/Overview:**

Tasmania's forests make an essential contribution to the unique scenic beauty of the state. The forests are also a renewable resource and as such are an important part of the State's economy. Forests change in appearance over time, either through long-term biological change or through the short-term effects of wildfire or harvesting and regeneration operations. Forestry Tasmania uses a visual management system to minimise adverse effects on forest landscapes in all forestry operations.

Visual management software is used to model the impact of harvesting operations from key points in the landscape. The Forest Practices Code outlines requirements to manage landscape and visual values, and the Manual for Forest Landscape Management 2006 also provides forest managers with a comprehensive range of principles, procedures and practices to guide the planning and management of forests in relation to visual issues.

## 4.6 Community engagement

### **Aims:**

**Actively promote open and constructive relationships with stakeholders and the broader community.**

**Be a good neighbour.**

### Background/Overview:

Forestry Tasmania manages state forests for multiple uses. It aims to identify and meet the needs of stakeholder groups, including neighbours. Forestry Tasmania is committed to:

- Engaging the community
- Taking account of community input
- Being a good neighbour
- Building a sound community understanding and appreciation of forest management.

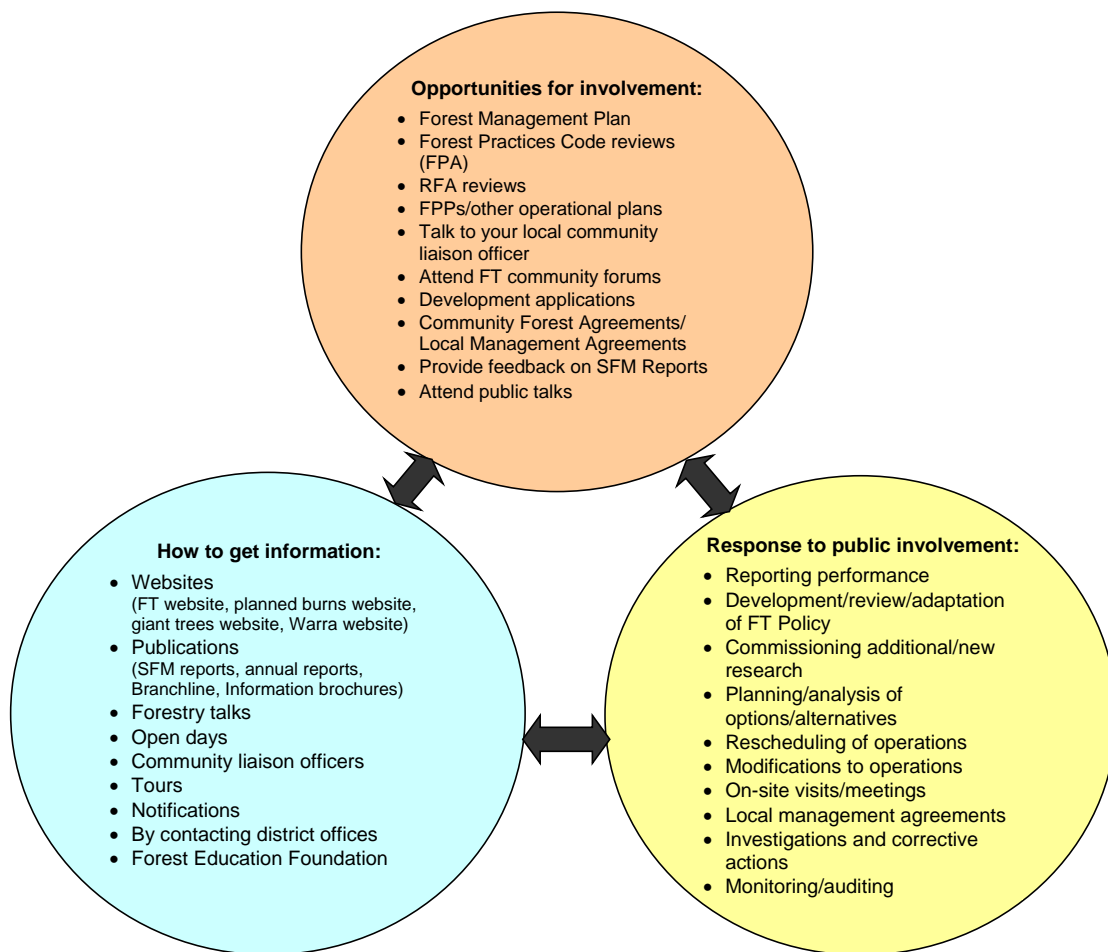
To achieve these objectives Forestry Tasmania's policy is to:

- Provide opportunities for meaningful public input into the development of the Forest Management Plan
- Publicly report on social, environmental and economic performance indicators and invite community feedback
- Consult with local government, the forest industry and neighbours on plans for forest operations
- Develop mutual cooperation with community groups and organisations to use state forests for various purposes such as recreation or for obtaining minor forest products
- Provide meaningful feedback to the public on issues raised and submissions received and inform the community in a timely manner about forest management issues
- Implement the *Good Neighbour Charter for commercial tree farming in Tasmania 2000* (currently being updated) and effectively consult with neighbours
- Implement the Tourism and Forestry Protocol Agreement and minimise any negative impacts of forestry operations on visitors' experiences

Forestry Tasmania communicates and consults with stakeholders, neighbours and communities by:

- Public websites (the Forestry Tasmania website, Warra website, Planned Burns website, Giant Trees website)
- Publications (such as the Annual Report, Sustainable Forest Management Report, DFRD Annual Report, Forestry Matters, Information Brochures, e-Branchline, *Tas Forests*, Forest Management Plan)
- Public talks (such as the Forestry Talks and presentations to school, community and special interest groups)
- Neighbour notifications and consultations (for example in relation to harvesting operations, application of pesticides, tourism developments, fire management and road works)
- Open days and tours (including school group tours, tours of Warra, special interest group tours, forestry open days)
- Community liaison officers (each district has a designated community liaison officer who actively engages with local groups and individuals and provides further information to interested people)
- Forest Education Foundation (developed to encourage informed decisions about forest use within the community by promoting a sound understanding of forests and forestry processes and of the social, economic and environmental values of the forests. See <http://www.forest-education.com>)
- Meetings with peak bodies, stakeholder groups and community groups (including meetings with local government, apiary groups, TALSC, NRM groups, local community groups and the State Government)
- Community forest agreements (including with Esk Water, Hobart Water, Tasmanian Beekeepers Association, Tasmanian Trail Association and Tasmanian Farmers and Graziers Association)
- Local management plans or agreements (such as for Butlers State Forest, Bruny Island State Forest)
- Over the counter or telephone contact (information available at Forestry Tasmania District offices includes maps, information brochures, Forest Practices Plans, books and some forest products)
- Tourism Protocol (outlines a number of communication practices for different operations and activities that were agreed to in 2003)

Figure 10. Forestry Tasmania's communication mechanisms.



## 5 Sustaining science-based stewardship

Good stewardship requires a commitment to comply with all legal and regulatory requirements, a certification process to test and demonstrate that commitment, research to develop new knowledge and the organisational capacity to implement and continuously improve sustainable forest management.

### 5.1 Legal compliance

**Aim:**  
**Comply with the law.**

#### Background/Overview:

Compliance with the legislative and policy framework at the state and commonwealth level is an important step in demonstrating sustainable forest management. Forestry Tasmania is committed to ensuring compliance with the appropriate legal and other requirements. The Charter conforms with all relevant legislation and policies as they pertain to state forests or activities in state forests. Refer to Appendix 11 for a summary of the main legislation, policies and codes directing the implementation of sustainable forest management.

### 5.2 Certification

**Aim:**  
**Maintain independent, third party certification of forest management.**

#### Background/Overview:

The area of state forests under operational management control of Forestry Tasmania, is certified against the requirements of the:

- Australian Forestry Standard (AS4708)
- International Standard for Environmental Management Systems (ISO 14001)
- Australian Standard for Occupational Health and Safety Management (AS4801)

Forestry Tasmania is committed to improving its forest management through continually improving its management systems and performance outcomes and our goal is to ensure no non-conformances are raised during the six monthly audits.

### 5.3 Research

**Aim:**  
**Use science to inform continuous improvement in forest policy and management.**

#### Background/Overview:

Forestry Tasmania maintains a significant capacity for research, development and extension work to improve the productivity, health and sustainability of the management of state forests. This research facilitates development and sharing of expertise with forest managers, collaborative partners, the broader public and the international forest science community. Results of in-house research on strategic and operational issues and collaborative research are used to inform both policy and forest management activities and drive continuous improvement. The majority of the internal research is carried out by the Division of Forest Research and Development (DFRD).

Refer to Appendix 12 for a list of the current and future major research priorities. More detail on these programs is provided in annual reports, available from <http://www.forestrytas.com.au/forestrytas/pages/research.html>.

At least one third of research staff time is spent on extension work, ensuring research results are put into field practice. Forestry Tasmania is a core partner in the Cooperative Research Centre (CRC) for Forestry, and through the Tasmanian Government, is a member of the Bushfire CRC. DFRD also runs Forestry Tasmania Forest Health Surveillance and Quality Standards programs, publishes the research journal *Tasforests*, and puts significant effort into communicating modern forest science to the general public.

## 5.4 Organisational capacity

### **Aim:**

**Maintain accurate information, effective systems and procedures, and skilled personnel for forest management.**

### Background/Overview:

Forestry Tasmania's sustainable management of Tasmania's state forests takes into account their large and widely-distributed nature, and close interactions with other landowners and land-uses. The forests are biologically diverse, and rich in timber and non-wood values; and management goals are multiple, complex, and often in tension.

Forestry Tasmania currently employs more than 500 staff directly and 1300 contractors, whose knowledge and experience span a wide range of disciplines, each of which needs to be applied at operational, technical, and professional levels. Forestry Tasmania recognises the importance of active training programs for both staff and contractors to maintain these skill levels and organisational capacity.

Information about the land and forest resources and their values is sourced through routine mapping, inventories, field assessments and surveys. These programs are designed both to measure current conditions and to monitor changes over time.

The management and practical application of this information is supported by a variety of systems and procedures. They include resource databases, mapping and spatial analysis systems, asset management systems, strategic planning, modelling systems, detailed procedures for growing and tending trees, environmental monitoring procedures, and planning protocols.

Sustainable forest management requires not only the maintenance of existing capabilities, but also their active and ongoing development in response to new technologies, scientific discoveries, methodological advances, and changing community expectations.

## Plan implementation

### Monitoring and auditing

This Charter forms the basis for the setting of annual targets under Forestry Tasmania's Sustainable Forest Management Program.

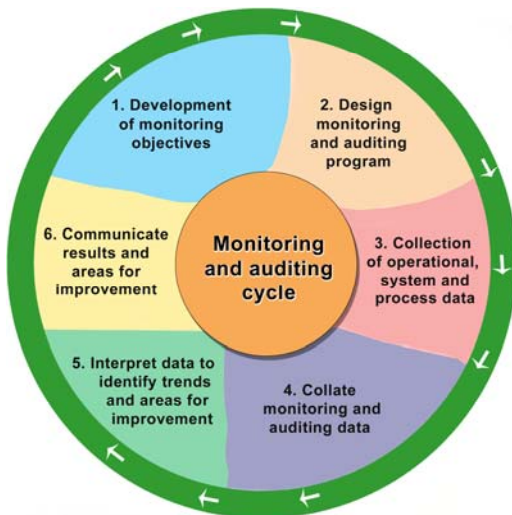
Monitoring and auditing are recognised as essential and integral to sustainable forest management. When collected and analysed in a systematic way, monitoring and auditing data can provide the basis for evaluating the effectiveness of management policies and actions in achieving objectives.

This produces an adaptive or responsive approach to management. Appendix 13 highlights management measures introduced by Forestry Tasmania in the past 10 years, as a result of adaptive and responsive management.

Monitoring and auditing can be used to:

- Improve and demonstrate performance
- Determine compliance
- Manage towards goals
- Manage and evaluate impacts
- Understand systems
- Monitor effectiveness of standards
- Facilitate reporting

Figure 11. The monitoring and auditing cycle.



Forestry Tasmania conducts regular structured monitoring and auditing of operations, systems, processes and outputs. It is also subject to similar processes by external regulators and third party, independent certification auditors. Results of external, third party forest certification audits will continue to be made available on the Forestry Tasmania website.

### Review and Assessment

Forestry Tasmania will annually review and assess the implementation of the Charter to ensure the objectives are being met. Information from the annual plan implementation review and assessment process is included in annual Forestry Tasmania reports (see below) as well as state and commonwealth five-yearly reports such as the RFA Review and State of the Forests Reports.

Forestry Tasmania annually reviews its Sustainable Forest Management Program to ensure responsiveness to current issues and trends.

This allows Forestry Tasmania to respond to results from research, monitoring and auditing programs, which can in turn lead to new operational guidelines, targets and practices.

Forestry Tasmania also annually reviews programs in its key business unit areas including forest research and development, forest management and fire management.

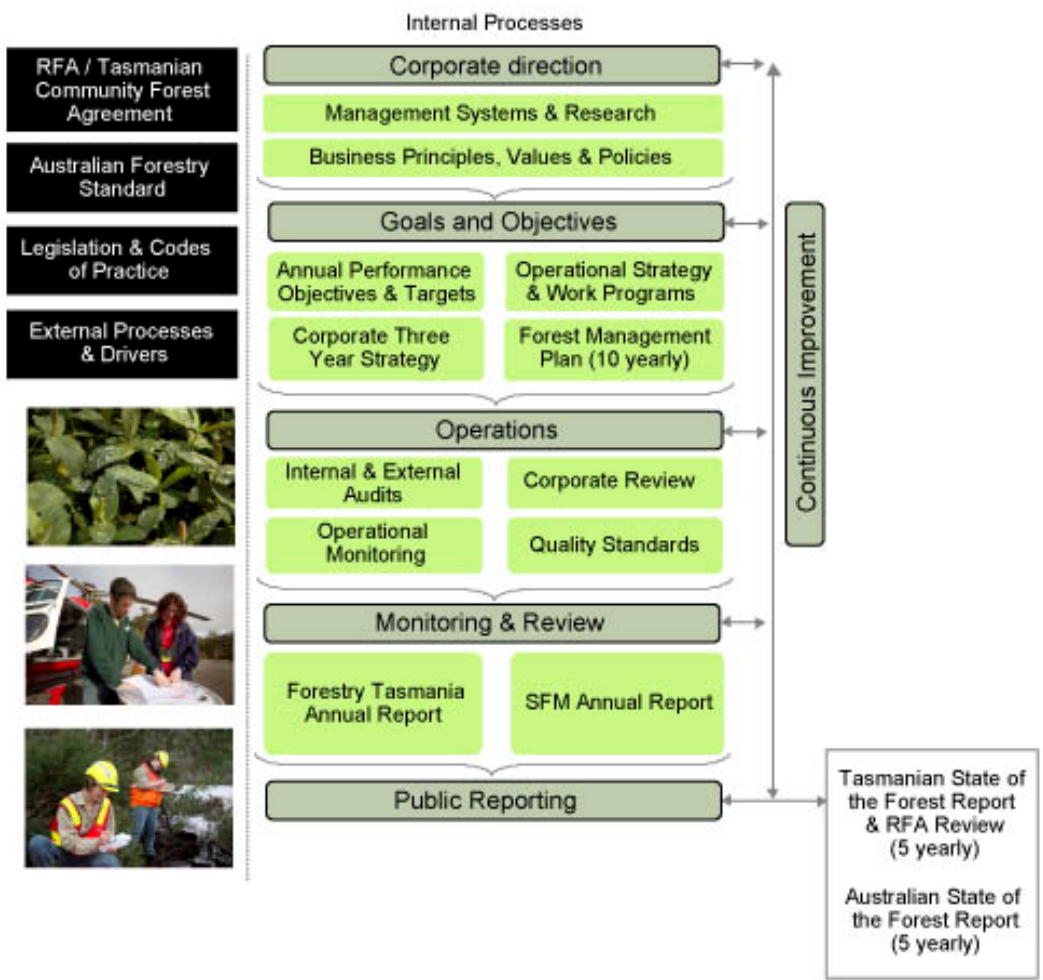
Review and assessment of the Charter provides for the refinement of management guidelines, prescriptions and forest zoning in response to new information or changes in government, policy, community expectation, technology and timber market conditions.

The annual Sustainable Forest Management (SFM) report will summarise the preceding year’s implementation of the Charter, and include annual implementation targets and indicators for the upcoming year. These shorter-term targets will help in achieving the longer term aims outlined within the Charter.

### Reporting

Reporting on the implementation of this Charter is a vital step in ensuring Tasmania’s state forests are managed in a responsible and sustainable manner (Figure 12). Forestry Tasmania is committed to annually reporting the implementation of the Charter. See Appendix 14 for a list of items on which Forestry Tasmania will report in the annual Sustainable Forest Management Report, which will be made publicly available.

Figure 12. Reporting structure.



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## **Glossary**

1080	A chemical (sodium monofluoroacetate) used in browsing mammal control. It is a broad spectrum metabolic toxic compound which is widely used for the control of vertebrate pests in Australia. No longer used by Forestry Tasmania.
Arisings	Wood products produced additional to targeted products when harvesting an area (e.g. target is sawlogs and pulpwood is an arising).
Auditing	A systematic and documented verification process of objectively obtaining and evaluating evidence to determine whether an organisation's management system conforms with forest management performance criteria and requirements of the standards, and which takes account of the likelihood of failure to detect breaches, and for communication of the results of this process to management.
Australian Forestry Standard (AFS)	The Australian Forestry Standard (AFS) is the forest management standard for the Australian Forest Certification Scheme (AFCS), which certifies extensive areas of native forests and plantations across Australia. It provides consumers with assurance that forest and wood products are from sustainably managed forests. The AFS is endorsed by the international Programme for Endorsement of Forest Certification (PEFC).
Biodiversity	The diversity of all life forms, including species, genetic and ecosystem diversity. Biodiversity can be assessed at a variety of levels; for example, harvesting area, catchment, landscape, national and global.

Blocks	Tasmanian state forests are subdivided into numbered compartments within named blocks, for descriptive and record-keeping purposes. These units are for administrative purposes only and have no direct effect on the management of the forest.
Carbon stock	The quantity of carbon held within a pool at a specified time, e.g. forest, wood products.
Carbon sink	A carbon pool which accumulates atmospheric carbon, during a given time, such that more carbon is flowing into it than out of it. The opposite of a carbon source.
Carbon source	A carbon pool that is a source for atmospheric carbon, during a given time, such that more carbon is flowing out of it than into it. Opposite of a carbon sink.
Carbon sequestration	The capture and long-term storage of carbon in forests and soils or in the oceans, so that the build-up of carbon dioxide (one of the principal greenhouse gases) in the atmosphere will reduce or slow. Managing land and vegetation to increase carbon storage can help reduce greenhouse gas emissions.
CAR Reserve	Comprehensive, adequate and representative reserve system, established during the 1997 Tasmanian Regional Forest Agreement, meeting the JANIS criteria.
Category 1 & 3 sawlog	High quality eucalypt sawlog as specified in the <i>Forestry Regulations 1993</i> Schedule 5 part 1. Eucalypt sawlogs from mature and over-mature forest are termed 'category 1 sawlogs' and those from regrowth and plantation forests are termed 'category 3 sawlogs'.
Category 2 sawlog	Second-grade eucalypt sawlog. These sawlogs arise from high quality eucalypt sawlog operations.
Category 8 log	Eucalypt log with a quality below category two specifications. These sawlogs arise from high quality eucalypt sawlog operations.
Category 4 sawlog	First-grade sawlog from special species timbers such as blackwood, myrtle, sassafras, celery top pine, Huon pine and leatherwood.
Certification	The voluntary process by which planning, procedures, systems and performance of on-the-ground forestry operations are certified, following an audit, by a qualified and independent third party as meeting a predetermined standard. Forest operations found to meet or exceed the given standard are issued a certificate (hence certified).
Clearfelling	The removal of all trees on a harvesting area in a single operation, and the subsequent regeneration of an even-aged stand by sowing or planting. A canopy opening of 4-6 times mature tree height may be considered the lower limit for clearfelling. In the tall wet eucalypt forests of Tasmania, the minimum clearfell size is about 5 ha. In practice, most clearfelled production coupes in Tasmania range between 50 to 100 ha, although some are as small as 10 ha.
Clearwood	Wood free of knots. Clearwood is produced naturally after branch shedding and after pruning when the tree grows around the branch stub.
Compartments	Tasmanian state forests are subdivided into numbered compartments within named blocks, for descriptive and record-keeping purposes. These units are for administrative purposes only and have no direct effect on the management of the forest.
Comprehensive Regional Assessment (CRA)	A joint assessment of all forest values by the Commonwealth and State - environmental, heritage, economic and social - leading to the establishment of a comprehensive, adequate and representative reserve system, agreements on forest management, and the signing of a regional forest agreement (RFA).
Conversion/Clearing	The permanent or long-term removal of significant areas of native vegetation and its replacement by non-native vegetation, such as plantations, orchards, crops or pastures; different native species such as a blue gum plantation, or unvegetated developments, such as artificial water bodies, buildings and other infrastructure.
Corrective Action Request (CAR)	A CAR is raised to implement corrective and preventative action following the registering of an incident.
Coupe	For harvesting, state forests are subdivided into discrete areas called coupes.
(Unalienated) Crown land	Crown land for which private freehold title has never been issued.
Defined Forest Area (DFA)	An area of forest (including land and water) to which the requirements of the Australian Forestry Standard are applied, and to which the forest manager can demonstrate management control which allows them to achieve the requirements of the Australian Forestry Standard.
District	Regions for which state forests are broken into for the purposes of operational management. Forestry Tasmania has five districts: Bass, Derwent, Huon, Mersey and Murchison.
Environmental Management System (EMS)	The EMS sets targets for improving environmental performance, and establishes measures to gauge improvement.
Fire Action Plan	Outlines fire detection, preparedness and suppression procedures.
Fire Management Plan	Outlines strategic fire prevention techniques and locations. This includes tasks like fuel reduction through burning, slashing or ploughing, fire break maintenance and involvement with local fire management committees.
Forest Ecosystem	An ecological system composed of interacting living and non-living components of the environment in which trees are a major constituent, such that their canopies cover 20 per cent or more of the area.

Forest Estate Model	A representation of the growth and natural dynamics of a pre-defined area of forest; often used to simulate the effects of growing and harvesting trees on the long-term wood supply from the forest.
Forest Management Strategy	A statement of intentions the forest owner has for the management of their forest; often including approaches to harvesting and silviculture of the forest to produce an ongoing wood supply.
Forest Management System	The Forest Management System sets targets for improving forest management performance, and establishes measures to gauge improvement.
Forest Practices Code	A code established under the <i>Forest Practices Act 1985</i> which prescribes the manner in which forest practices must be conducted in order to provide reasonable protection to the environment.
Forest Practices Plan	A plan for forest operations, specified in Section 18 of the <i>Forest Practices Act 1985</i> .
Forest Practices System	The system established pursuant to the objectives of the Forest Practices System of Tasmania (schedule 7) of the <i>Forest Practices Act 1985</i> .
Forest Reserve	An area of state forest, formally gazetted for long-term intent, to be managed for recreational, scientific, aesthetic, environmental or protection purposes.
Forest	An area incorporating all living and non-living components, dominated by trees having usually a single stem and a mature (or potentially mature) stand height exceeding 5 m, with existing or potential projective foliage cover of overstorey strata, about equal to or greater than 30 per cent. This definition includes native forests and plantations regardless of age, and areas of trees sometimes described as woodlands.
Formal Reserve	A reserve equivalent to the International Union for the Conservation of Nature and Natural Resources (IUCN) Protected Area Management Categories I, II, III, IV or VI as defined by the World Commission on Protected Areas ( <a href="http://www.iucn.org">http://www.iucn.org</a> ). The status of formal reserves is secure, in that revocation requires approval of the Tasmanian Parliament. A forest reserve in a state forest.
Fossicking	To search for minerals for a purpose other than for commercial gain to a depth of two metres by digging by hand or using hand held instruments.
Fuel reduction burn	A fire of low intensity carried out under closely controlled conditions to reduce the quantity of accumulated fuel on the forest floor, without damaging standing timber. Also called low intensity prescribed burn.
Game	The forms of wildlife that are specified as partly protected in the <i>Wildlife Regulations 1999</i> and whose taking is subject to licensing under those regulations. They include pheasants, wallabies, possums, deer, quail and ducks.
Geomorphology/ Geoconservation	Geomorphology is the study of the evolution and configuration of landforms. Geoconservation is the identification and conservation of geological, geomorphological and soil features, assemblages, systems and processes (geodiversity) for their intrinsic, ecological or heritage values.
Giant Tree	All those trees which are at least 85 metres tall or 280 cubic metres in volume.
Hardwood	Timber from broad-leaved flowering tree (botanical group <i>Angiospermae</i> ), irrespective of physical hardness. Includes eucalypts, wattles and most rainforest species.
High Quality Eucalypt Sawlogs	First-grade eucalypt sawlogs as specified in the <i>Forestry Regulations 1999</i> , Schedule 1, Part 2. These logs are referred to as Category 1 sawlogs when derived from mature forests and Category 3 logs when derived from regrowth forests or plantations.
IBRA Bioregion	The Interim Biogeographic Regionalisation for Australia (IBRA) divides the Australian continent into 85 bioregions. Tasmania is divided into eight bioregions that are described in the report titled Interim Biogeographic Regionalisation for Australia (1995). <a href="http://www.deh.gov.au/parks/nrs/ibra/version4-0/framework/index.html">http://www.deh.gov.au/parks/nrs/ibra/version4-0/framework/index.html</a>
Informal Reserve	A reserve other than a forest reserve. In state forests, this comprises an area identified as a protection zone under the Management Decision Classification system. It also includes other administrative reserves on public land managed to protect CAR values.
Intensive Forest Management (IFM)	Silvicultural management beyond the minimum required to ensure regeneration. Usually refers to thinning native forest, or establishing and managing plantations.
Integrated Pest Management (IPM)	A pest management strategy that focuses on the long-term prevention or suppression of pest problems through a combination of biological, cultural, and genetic pest control methods with use of pesticides as the last resort. IPM considers a targeted species' life cycle and intervenes in reproduction, growth, or development to reduce the population. IPM practices include use of resistant varieties, timing of planting, cultivation, biological controls. As a last resort, pesticides may be used to control pests when careful monitoring indicates they are needed to prevent pests from significantly interfering with plants being grown. IPM systems anticipate and prevent pests from reaching economically damaging levels.
ISO 14001	The international standard for an environmental management system, which formalises methods for reviewing, reporting, documenting, monitoring and training in environmental management practices.
Karst	A landscape that results from the high degree of solubility in natural waters of the bedrock. Underground drainage, sinkholes and limestone caves are best known components of karst.

Lost Time Injury Frequency Rate (LTIFR)	The number of incidents incurred where the injured employee is off work for the whole of the following day.
Management Decision Classification (MDC)	The Management Decision Classification (MDC) system is the way in which Forestry Tasmania zones the land it manages to optimise management and balance the competing demands on the forest estate. Zoning enables areas with particular values to be identified and appropriate management strategies to be put in place to ensure protection, maintenance and enhancement of these values. All areas are zoned into either production or protection primary zones that indicate their overall availability for wood production.
Mature forest	Forest containing a majority of trees more than 110 years old.
Merchantable timber	The part of a tree's stem with value as a saleable product; usually refers to veneer, sawlog and pulpwood.
Multiple-use forest	Forested land on the Register of Multiple Use Forest Land, defined by the <i>Public Land (Administration &amp; Forests) Act 1991</i> and also under the <i>Forestry Act 1920</i> . Managing these forests combines a number of uses; usually in a single stand or on the same general site, but not necessarily at the same time.
Native forest	Forest consisting of tree species that are native to Tasmania, other than plantations. Native forests include mature, regrowth forests and regeneration forests.
Natural resource	Naturally occurring material such as soil, wood, air, water, oil or minerals. They are valuable to people, plants, and wildlife.
Non-conformance	A significant departure from planned requirements, which requires corrective or preventative action to rectify.
Oldgrowth	Ecologically mature forest where the effects of disturbances are now negligible.
Pathogen	An organism or agent (e.g. fungus, bacterium, nematode or virus) capable of causing disease in a particular host or range of hosts.
Partial harvesting	Harvesting systems which include the retention of some trees, for example, seed tree, shelterwood, thinning and variable retention.
Peeler log	Logs suitable for peeling on a lathe to produce veneer for a range of solid wood products. The veneer produced from rotary peeling is generally used for structural grade plywood, whereas veneer produced by slicing high quality logs is furniture grade (e.g. for table tops).
Pest	Insects, plant diseases, weeds, nematodes and other organisms that cause damage to crops.
Plantation	Forest established by planting seedlings rather than sowing seed. Plantation areas usually have intensive site preparation prior to planting. They are managed intensively for future timber harvesting.
Potential sawlog retention	Management of multi-aged forest (typically highland or dry eucalypt forest) which encourages growth by removing competition and initiates a new crop of seedlings.
Private Land	All lands in Tasmania, other than public land and land owned or leased by the Commonwealth.
Production forest (in MDC)	Forest zoned generally for commercial management, that is, containing sufficient quantities of sawlog and pulpwood quality timber to justify the expense of harvesting, and not reserved for protection of other values.
Protection forest (in MDC)	Forest zoned to exclude wood production in order to protect special values. It includes areas of forest and non-forest where maintenance of identified special values is incompatible with wood production or other forest works.
Public Forest	Includes forest in world heritage areas, national parks, formal and informal reserves and state forests.
Pulpwood	Logs below sawlog quality but suitable for manufacturing pulp, paper and panel products.
Quarry	An area of land where earth/gravel is extracted for use on roads.
Rainforest	Forest dominated by tree species such as myrtle, sassafras, celery-top pine and leatherwood, in which eucalypts comprise less than five per cent of the crown cover. Rainforest generally occurs in areas with high rainfall.
Reforestation	The process through which forest is re-grown on harvested or cleared land. This may involve silvicultural methods of regenerating forest and/or establishing plantations.
Regional Forest Agreement (RFA)	A long-term agreement between the Commonwealth and State Governments, to ensure the sustainable management of Tasmania's forests.
(Aged) Regrowth forest	Forest that has been logged and regenerated, generally since 1960, using deliberate site preparation and seeding techniques. The year of sowing is documented and the age of the trees may be determined. Also referred to as silvicultural regeneration or even aged regrowth.
(Unaged) Regrowth forest	Forest regenerated after wildfire or other disturbances, and containing a majority of trees less than 110 years old, where there is no deliberate site preparation or seed sowing. Unaged regrowth forest may contain scattered individuals or stands of ecologically mature trees.
Reserves	Includes formal and informal reserves in state forests, crown land and private land.
Roundwood	Logs below sawlog quality but suitable for manufacturing posts and poles.
Safety Management System	The part of the overall system managing the risks associated with the business of the organisation. It includes organisational structure, planning activities, responsibilities, practices, procedures, processes and resources for developing, implementing, achieving, reviewing and maintaining the occupational health and safety policy.

Sawlog	A log suitable for processing into sawn timber.
Selective logging	Harvesting which targets a small proportion of a stand for specific products which are removed as single trees or small groups of trees. All other growing stock is retained for potential harvest in subsequent cycles.
Silvicultural system/Silviculture	All the manipulations (e.g. harvesting, regeneration, thinning) carried out during the life time of forest stands or trees to achieve the management objectives of the landowner.
Softwood	Timber of coniferous or cone-bearing trees (in the botanical group <i>Gymnospermae</i> ), irrespective of physical hardness. Includes radiata pine.
Solid wood	Wood (excluding high quality sawlog), principally from regrowth forest and plantations, that is suitable for lower grade sawn boards or for producing a range of products in sheet or beam form based on peeling and gluing technology.
Special Management Zone (SMZ)	SMZs form the second tier of the MDC system after, and regardless of, the primary zone of "Protection" or "Production". SMZs allow for areas with particular special values or uses to be identified within the MDC system, so that appropriate management prescriptions can be applied.
State forest	Land managed by Forestry Tasmania under the <i>Forestry Act 1920</i> , including purchased land.
Sustainable Forest Management	Management to maintain and enhance the long-term health of forest ecosystems while providing ecological, economic, social and cultural opportunities for the benefit of present and future generations.
Sustainable Yield	The level of commercial timber (or product mix) that can be maintained under a given management regime, without reducing the long-term productive capacity of the forest.
Taswood Growers	A joint venture between Forestry Tasmania and GMO Renewable Resources, which manages radiata pine forest. Timberlands New Zealand is the appointed manager for Taswood Growers.
Tasmanian Community Forest Agreement (TCFA)	A supplement to the RFA (commonly referred to as the TCFA) signed in 2005 by the Commonwealth and State Governments, that resulted in additional protection of oldgrowth forests in Tasmania.
Thinning	A silvicultural treatment to overstocked regrowth or plantation stands to release potential sawlogs from competition. There is no intention to induce regeneration.
Threatened Vegetation Communities	Vegetation communities listed as threatened under the <i>Nature Conservation Act 2002</i> .
Threatened Fauna Adviser	The Threatened Fauna Adviser is a decision-support system developed by the Forest Practices Authority, in consultation with DPIW, specialists and the forest industry, to deliver management recommendations for forest dependent threatened fauna in wood production forests.
Threatened Species	Groups of plants or animals listed in Schedule 3, 4 or 5 of the <i>Threatened Species Protection Act 1995</i> .
Three-Year Wood Production Plan	Companies harvesting more than 100,000 tonnes per annum must lodge a three-year plan annually to the Forest Practices Authority. The Plan outlines proposed operations, and is finalised after consultation with local government.
Variable retention	A harvest system where structural elements or biological legacies (eg old trees, stags, logs, treeferns) from the harvested stand are retained for the new stand to achieve various ecological objectives. The system typically requires the majority of the felled area to be within one tree height of forest that is retained for at least a full rotation.
Veneer log	A log suitable for producing veneer, either by slicing or peeling, for panel products.
Wilderness	Land that, together with its plant and animal communities, is in a state that has not been substantially modified by, and is remote from, the influences of European settlement or is capable of being restored to such a state, is of sufficient size to make its maintenance in such a state feasible, and is capable of providing opportunities for solitude and self-reliant recreation.
Wildfire	Unplanned vegetation fire, which burns out of control.
Yield Tables	A matrix of wood production estimates (usually in cubic metres per hectare), for various log products at various ages.

## Acronyms

ABARE	Australian Bureau of Agricultural and Resource Economics
ADWG	Australian Drinking Water Guidelines
AFCS	Australian Forest Certification Scheme
AFS	Australian Forestry Standard
AS	Australian Standard
AS4708	Australian Standard: Forest management — Economic, social, environmental and cultural criteria and requirements for wood production (known as The Australian Forestry Standard).
AS4801	Australian Standard: Occupational Health and Safety Management System
CAR	Comprehensive, Adequate and Representative
CERF	Commonwealth Environmental Research Facilities
CFMEU	Construction, Forestry, Mining and Energy Union
CRA	Comprehensive Regional Assessment
CRC Forestry	Cooperative Research Centre
CSIRO	Commonwealth Scientific and Industrial Research Organisation
DAFF	Department of Agriculture, Fisheries and Forestry
DFA	Defined Forest Area
DFMP	District Forest Management Plan
DFRD	Department of Forest Research and Development
DIER	Department of Infrastructure, Energy and Resources
DPIW	Department of Primary Industries and Water
DEPHA	Department of Environment, Parks, Heritage and the Arts
EMPCA	Environmental Management and Pollution Control Act, 1994
EMS	Environmental Management System
FEA	Forest Enterprises Australia
FEF	Forest Education Foundation
FFIC	Forests and Forest Industry Council
FIAT	Forest Industries Association of Tasmania
FPA	Forest Practices Authority
FPP	Forest Practices Plan
GIS	Geographic Information System
GVP	Gross Value of Production
IBRA	Interim Biogeographic Regionalisation for Australia
ICOMOS	International Council on Monuments and Sites
IFM	Intensive Forest Management
IPM	Integrated Pest Management
ISO	International Organization for Standardization
ISO 14001	International Standard: Environmental Management System
IUCN	International Union for the Conservation of Nature and Natural Resources
JAS-ANZ	Joint Accreditation System for Australia and New Zealand
LGAT	Local Government Association of Tasmania
LRA	Logging Residue Assessment
LTER	Long Term Ecological Research
LTIFR	Long Term Injury Frequency Rate
LUPPA	Land Use Planning and Approvals Act 1993
MDC	Management Decision Classification
MDLV	Mill Door Landed Value
MRT	Mineral Resources Tasmania
NAIDOC	National Aborigines and Islanders Day Observance Committee
NCAT	National Carbon Accounting Toolbox
NEPM	National Environmental Protection Measure
NRM	Natural Resource Management
PBWMP	Property Based Wildlife Management Plan
PEFC	Programme for the Endorsement of Forest Certification
PFT	Private Forests Tasmania
PM	Particulate Matter
PNFE	Permanent Native Forest Estate
PWS	Parks and Wildlife Service
RFA	Regional Forest Agreement, 1997
RMCOP	Reserve Management Code of Practice, 2003
SDI	Soil Dryness Index
SFM	Sustainable Forest Management
SMZ	Special Management Zone

STMU	Special Timbers Management Unit
TALSC	Tasmanian Aboriginal Land and Sea Council
TBA	Tasmanian Beekeepers Association
TCA	Timber Communities Australia
TCFA	Tasmanian Community Forest Agreement (Supplementary RFA), 2005
TCSF	Tasmanian Country Sawmillers Federation
TFCA	Tasmanian Forest Contractors Association
TFFIS	Tasmanian Forests and Forest Industry Strategy, 1990
TFGA	Tasmanian Farmers & Graziers Association
TFS	Tasmanian Fire Service

## APPENDIX 1

### Summary of historical events in Tasmanian forestry

Year	Event
c.36,000 B.C.	Aboriginal people settle in Tasmania. Forests moulded by fires lit by Aboriginal people or lightning.
1803	European settlement in Tasmania, timber harvesting and deliberate forest clearance begin.
1820s	Tasmania's export timber industry commenced.
1850	Beginning of mechanised sawmills.
1858	Waste Lands Act encouraged clearing of wet sclerophyll forests.
1881	Powers to set aside crown land for forestry initiated. Start of forest conservation.
1885	State Forests Act, with a provision for a Conservator of Forests to be appointed.
1898	Royalties for timber introduced.
1908	First plantations established.
1920	Forestry Act passed, setting up a Forestry Department, forest use having previously been under the control of the Lands Department.
1930	First aerial photographs of Australian forests taken, in north-western Tasmania, leading to accurate maps of the state's forests.
1947-1994	Forestry Commission in operation following major changes to the Forestry Act.
Up to 1950s	Primarily selective harvesting with no systematic regeneration treatment.
1950s	Scientific basis for clearfell, burn and sow silviculture developed (by Max Gilbert and Murray Cunningham).
1959	Legislative Council inquiry into regeneration of eucalypt forests, recommending that active regeneration operations should be made.
1960s	Significant expansion in pine plantation program, part of a commonwealth scheme.
1971	Woodchip exports commenced, systematic regeneration operations and forest research significantly expanded.
1975	Forestry Act amended to allow forest reserves with legislative security to be set aside. First forest reserves established.
1980s	Development of Forest Practices Code and Woodchip Environmental Impact Statement. Partial harvesting silviculture for dry forests began to be systematised. Primacy of sawlog production enshrined as Forestry Act amended (in 1984) to require an annual minimum of 317,000 m <sup>3</sup> of sawlogs to be made available.
1985	Forest Practices Act, requiring Forest Practices Code.
1987	Forest Practices Code became enforceable.
1990	Forests and Forest Industry Strategy, followed by a reduction of minimum annual sawlog quantity to 300,000 m <sup>3</sup> . Start of intensive forest management strategy (including an expanded eucalypt plantation program) to mitigate transfers of state forests into the reserve system.
1990	Introduction of Forestry Tasmania's Management Decision Classification (MDC) zoning system for identifying special values and uses in state forests.
1994	Forestry Commission functions separated into state forest management (Forestry Tasmania, a Government Business Enterprise); private forest policy (Private Forests Tasmania); environmental regulation on state and private forests (Forest Practices Board); and forest policy (DIER).
1994	First Tasmanian State of the Forests Report.
1994	Native forest quality standards auditing introduced.
1995	Special Timbers Management Units (STMUs) designated.
1996	First assessment of attainment of Ecologically Sustainable Forest Management (ESFM) in Tasmania.
1997	Regional Forest Agreement.
2000s	Merchandising yards open, focus on production from native forest regrowth. Silviculture based on site and purpose. Additional reserves created for oldgrowth. Certification of forests in Tasmania.
2000	Forest Practices Code revised.
2000	Seventh (and last) District Forest Management Plan (post-RFA) approved by Minister.
2001	State of the Forests Report based on internationally recognised criteria and indicators for forest sustainability.
2001	First annual Forestry Tasmania Sustainable Forest Management Report (2000-2001).
2002	Regional Forest Agreement five-year progress review.
2003	Tasmanian state forests certified against the Australian Forestry Standard.
2005	Tasmanian Community Forest Agreement.
2007	Regional Forest Agreement 10-year progress review.
2007	End of broad scale conversion of native forest to plantation on public land.

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## APPENDIX 2

### Plan area

At 30 June 2007, the plan area comprised 1.509 million hectares including 1.267 million hectares of state forest, 222,000 hectares of state forest reserves, 1000 hectares of private property and 20,000 hectares of other public land for which Forestry Tasmania has management responsibility. See Table 4 and Map 1. The plan area will change during the life of the plan, as areas of state forest are revoked/sold or dedicated/purchased. The plan will apply to all areas of state forest and crown land managed by Forestry Tasmania now and throughout the plan duration.

Table 4. Land use and tenure in the plan area<sup>1</sup>.

Landuse	Tenure <sup>4</sup> (ha)				Total
	State forest		Other lands managed by Forestry Tasmania		
	Forest Reserve	Other	Crown <sup>5</sup>	Private <sup>6</sup>	
Formal Reserve	222,000				222,000
Informal Reserve		281,000	11,000		292,000
Production Forest:					
• Native forest wood production area		593,000	6,000		599,000
• Other native forest		290,000	2,000		292,000
• Hardwood Plantation		49,000	500	1,000	51,000
• Softwood Plantation		54,000	0	0	54,000
<b>Total</b>	<b>222,000</b>	<b>1,267,000</b>	<b>20,000</b>	<b>1,000</b>	<b>1,509,000</b>

1. As at 30 June 2007.

2. Rounded to the nearest 1000 hectares for areas exceeding 1000 hectares; otherwise rounded to nearest 100 hectares.

3. Figures in the total rows are not the sum of the columns but the rounded actual totals.

4. Forestry Tasmania managed land includes state forest, commonwealth-leased crown land, and Forestry Tasmania plantations on private land.

5. Mostly non-allocated crown land within the Buckland Military Training Area.

6. Land owned by independent private landowners on which Forestry Tasmania may have an interest in ownership or management of forests.

While the plan covers all state forest, its application is specific to the management of the Defined Forest Area<sup>3</sup>. Approximately 86 percent of the plan area is forested with the remainder being primarily non-forest vegetation communities such as heathlands and sedgeland.

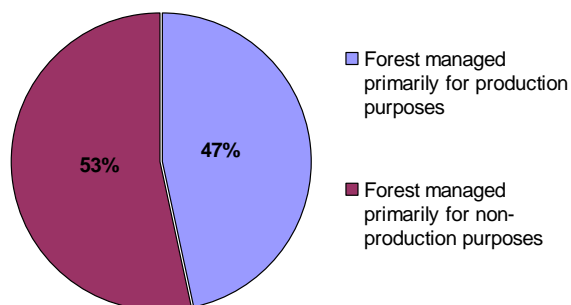
Table 5. Vegetation types within state forests.

Vegetation Type	Area (ha) <sup>1</sup>
Tall Eucalypt Forest	518,000
Low Eucalypt Forest	401,000
Rainforest	204,000
Other Native Forest	62,000
Non Forest	201,000
Hardwood Plantation	50,000
Softwood Plantation <sup>2</sup>	53,000
<b>TOTAL</b>	<b>1,489,000</b>

1. As at 30 June 2007. State forest only. Does not include 1000 ha of private property and 20,000 ha of other public land.

2. Largely managed by Timberlands New Zealand, and outside the DFA.

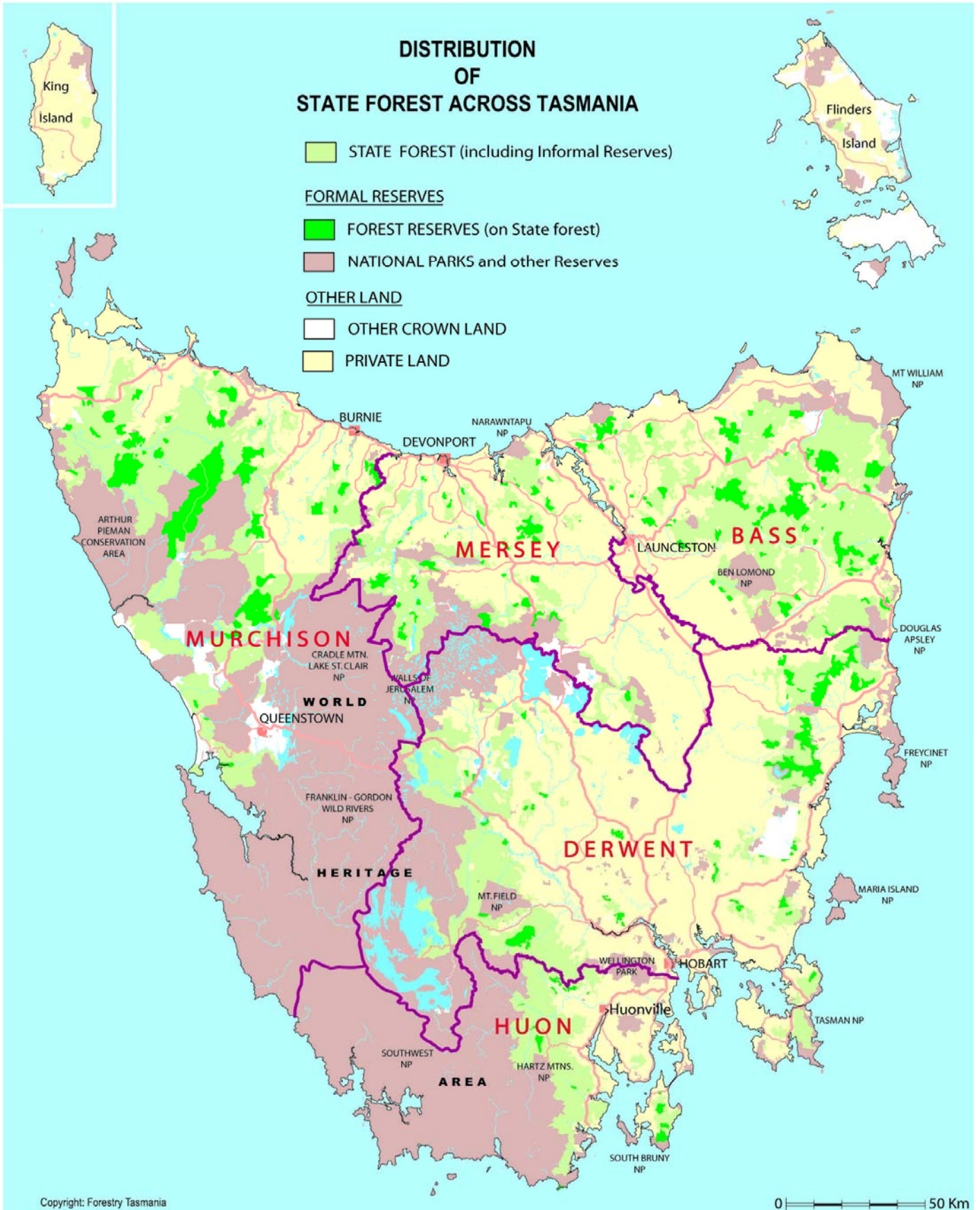
Figure 13. Forestry Tasmania managed land – general management purpose.



N.B. 53% is comprised of formal and informal reserves and “other native forest”.

<sup>3</sup> The area of land which is under the operational management control of Forestry Tasmania and is certified against the requirements of the Australian Forestry Standard. This area is not fixed, and may change from time to time.

Map 1. Distribution of state forest across Tasmania.



## APPENDIX 3

### Land classification and zoning

Land within the plan area is classified and zoned in a range of different ways to express its legal status and purpose, facilitate its management, and enable its administration and description.

#### Public Land Classification

Land is formally dedicated as state forest and as forest reserve by the Tasmanian Parliament in accordance with the *Forestry Act 1920*. Under the Act, Forestry Tasmania must use land gazetted as state forest to optimise both economic returns from wood production and other more general benefits to the public and the state. Land is gazetted as forest reserve for public recreational use, to preserve features of aesthetic, scientific or other value, or to preserve or protect flora or fauna. The status of land dedicated as state forest or forest reserve may only be revoked by Parliament.

#### Multiple Use Forest Land

The majority of state forests are listed on the Register of Multiple Use Forest Land, under the *Forestry Act 1920*. Such land cannot be de-registered or revoked from state forest unless Parliament is advised of any consequential impact on the level of timber production. These procedures enhance resource security for the timber industry. The Plan applies to all state forests, whether or not they are registered as Multiple Used Forest Land.

#### Freehold Title and Crown Land

The ownership of land is distinct from its management. Most state forest is crown land that has been dedicated under the *Forestry Act 1920*. This land is owned by the Crown. When land is dedicated as state forest by Parliament responsibility for its management is given to Forestry Tasmania. Forestry Tasmania is also able to purchase freehold title to land from private landowners. Under the *Forestry Act 1920* the land then automatically becomes state forest, even though it is owned by Forestry Tasmania. The Plan applies to all state forest, irrespective of the ownership of the underlying land.

#### Administrative Districts

Forestry Tasmania manages and operates state forests through a series of districts, currently centred in Burnie, Devonport, Scottsdale, Hobart, and Geeveston. For descriptive and record-keeping purposes, state forests are also subdivided into numbered compartments within named blocks. These units are for administrative purposes and have no direct implications on the management of the forest.

#### Management Zones

Management zones help balance competing demands on the forest estate and make it easier to prioritise management objectives. They enable areas with particular values to be identified and managed to protect, maintain and enhance these values. Forestry Tasmania uses the Management Decision Classification (MDC) System (Orr and Gerrard 1998, Orr 1999). Through this system all land is initially classified in primary zones according to whether it is to be managed for **Production** or **Protection**. A second level of Special Management Zones (SMZ) is then used to define and indicate where management for special values or issues is needed. This does not necessarily preclude harvesting, provided the values are maintained.

MDC zoning is regularly reviewed and updated to incorporate additional special values as they are identified through planning systems. District forest managers can approve additions to the protection zone, however any changes to remove an area from the protection zone (informal reserves only), require the approval of Forestry Tasmania's Executive General Manager or Manager, Planning Branch. Under the Regional Forest Agreement, the removal of any area from an informal reserve must be documented for independent review as part of the five-yearly RFA review. Formal reserves can not be altered except through Parliament. Refer to Map 2 for an example map showing MDC primary zones and SMZs. MDC maps are available for the public to view at district offices.

##### Primary Zones:

##### *Production Zone –*

The production zone includes native forest and plantation areas generally available for wood production. It includes areas that may be less important or unsuitable for wood production for reasons including inaccessibility and the absence of merchantable trees (e.g. buttongrass plains), where these areas do not have specific conservation values warranting zoning within the protection zone.

The Forest Practices Code applies to the production zone (as it does to all forests) and regulates harvesting operations or excludes it from some areas. It applies to all road, timber harvesting, plantation establishment, native forest regeneration and quarry activities. Areas planned for harvesting are provisionally identified in the Three Year Wood Production Plan, and refined in forest practices plans.

*Protection Zone –*

The protection zone includes land where the protection of identified special values is incompatible with wood production or other forest works. Inclusion of land in the protection zone does not preclude the removal of small quantities of timber under special circumstances such as approved research or salvage operations, provided this can be done without significantly affecting the special values being protected. Salvage may include the removal of trees felled during the construction of roads or visitor facilities, but does not include harvest of trees following wildfires. Inclusion in this zone does not, necessarily preclude mineral exploration and mining. The protection zone is divided into:

- formal reserves (forest reserves proclaimed through Parliament and published in the Government Gazette)
- informal reserves

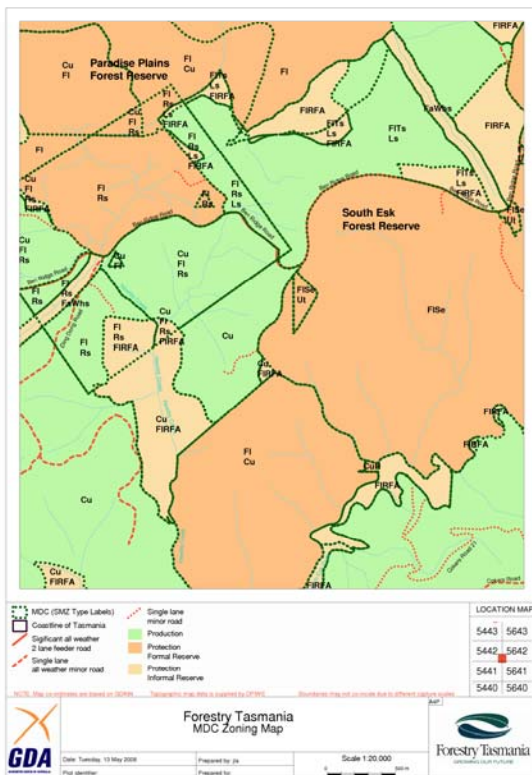
The protection zone forms part of the statewide Comprehensive, Adequate and Representative (CAR) reserve system, identified through the Regional Forest Agreement and the Tasmanian Community Forest Agreement.

Map 3 shows the distribution of primary zones in state forests.

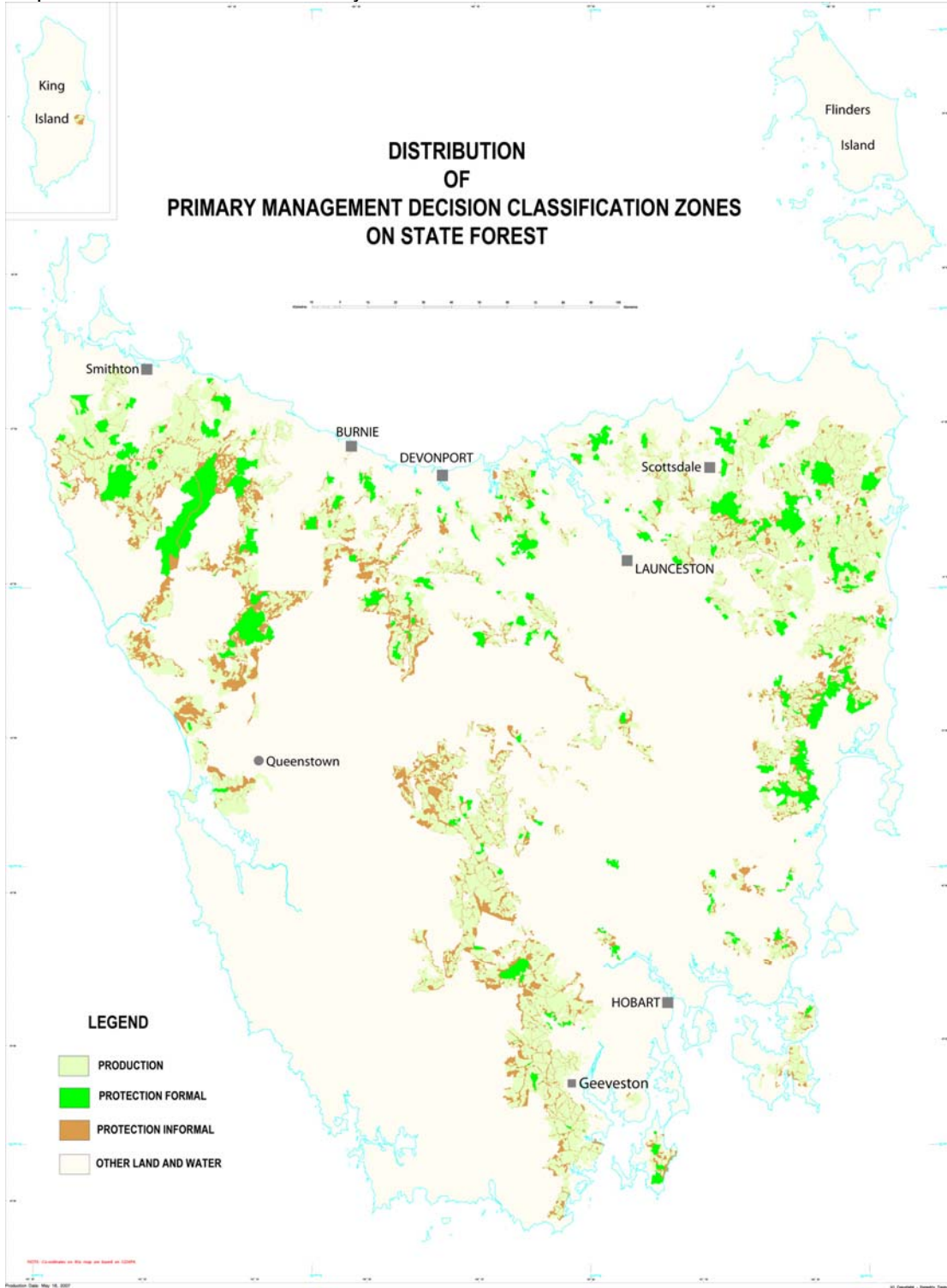
Special Management Zones:

Special Management Zones (SMZ) form the second tier of the MDC system and can be attributed to land in any Primary Zone to indicate where particular emphasis will be placed on management for special values or uses. As at October 2007 Forestry Tasmania has 109 specific SMZ classifications that reflect identified special values or uses Refer to Appendix 7 for a list of current SMZ classifications. More than one SMZ classification may be attached to any area to reflect the existence of multiple values.

Map 2. Example MDC Map showing primary zones and special management zone classifications.



Map 3. Distribution of MDC Primary Zones in state forests.



## APPENDIX 4

### Composition of statewide reserve system

<b>Tenure</b>	<b>Reservation Status</b>	<b>Area<sup>4</sup> (ha)</b>	<b>% of total land area</b>	<b>% of grouped tenure total</b>
Forestry Tasmania managed land <sup>1</sup>	Formal Reserve	222,000	3	15
	Informal Reserve	292,000	4	19
	Unreserved	995,000	15	66
	<i>Total</i>	<i>1,509,000</i>	<i>22</i>	<i>100</i>
Other Public Land	Formal Reserve	2,359,000	35	89
	Informal Reserve	36,000	0	1
	Unreserved	245,000	4	9
	<i>Total</i>	<i>2,640,000</i>	<i>39</i>	<i>100</i>
Private Land	Private CAR Reserve	34,000	0	1
	Unreserved	2,629,000	39	99
	<i>Total</i>	<i>2,663,000</i>	<i>39</i>	<i>100</i>
<b>TOTAL<sup>2</sup></b>		<b>6,812,000</b>	<b>100</b>	

1. Forestry Tasmania managed land includes state forest, commonwealth-leased crown land, and Forestry Tasmania plantations on private land.

2. Includes Macquarie Island.

3. As at 30<sup>th</sup> June 2007.

4. Rounded to nearest 1,000 hectares.

5. Figures in the total rows are not the sum of the columns, but the rounded actual totals.

## APPENDIX 5

### CAR values within forest reserves in the plan area

Forest Reserve	District	Area	Purposes	Mapped Forest Communities	
				Non-Oldgrowth	Oldgrowth
Alma Tier FR*	Derwent	284	Conservation	P	P
Andersons Creek FR	Mersey	324	Conservation	O,AC	
Apslawn FR	Derwent	2,820	Conservation	O,AD,AC,OT,V,TD,P	TD,P,O,AD,AC,V
Arm River FR	Mersey	128	Conservation, Education, Recreation	DT,D,M-	M+,DT,M-
Arthur River FR	Murchison	3,229	Conservation	BR,M+,M-,OT	OT,M+,O,M-
Arthur River FR Ext	Murchison	448	Conservation	BR,M+,M-,OT	OT,M+,O,M-
Arve Loop FR	Huon	939	Conservation	R,OT,O,C,SI	O,R,SU,OT,M-
Avenue River FR	Bass	4,300	Conservation	SG,SI,R,OT,AS,AI,AD,SO	SO,OT,AS
Badger River FR	Murchison	319	Conservation	N,NT	M-,NT,N
Balfour Track FR	Murchison	320	Conservation, Recreation, Cultural Heritage	OT,NT	M-,OT,M+
Bells Marsh FR	Bass	441	Conservation	SG,OT,O,AC	SG,AC
Big Sassy Creek FR	Derwent	193	Conservation	D,OT	M+,AD,DT,OT
Big Tree FR	Derwent	111	Conservation	SI,R	M+,R
Black Creek FR	Murchison	314	Conservation	BR,O,M+,DT,D,OT,M-	M+,M-,O,OT
Black Jack Hill FR	Mersey	664	Conservation	SI,DSC,AD	DSC
Blue Tier FR	Bass	5,056	Conservation, Recreation, Cultural Heritage	D,R,OT,M+,O,SI	M+,OT,O
Blue Tier FR EXT	Bass	247	Conservation	D,R,OT,M+,O,SI	M+,OT,O
Boco Creek FR	Murchison	930	Conservation	OT,O,N,BR	OT,O,NT,N,M+,M-
Bond Tier FR	Murchison	1,795	Conservation	BR,L,OT,BF,BA	OT,BA,M+,M-
Bonneys Tier FR	Mersey	356	Conservation	AC,SI,OT,AD,DSC	OT
Borradaile FR	Mersey	257	Conservation	O,D,DT,M-,SI	M-,DT,D
Boyd FR	Derwent	10	Conservation		OT
Break O'Day FR	Bass	332	Conservation	AD,D,DT	L,AD,D
Bridgenorth FR	Mersey	41	Conservation		AD
Brookerana FR*	Derwent	60	Conservation	D,OT,O	P,DT,D
Brown Mountain FR	Derwent	653	Conservation	AS,D,O,TI,P	P,O,D
Brushy Rivulet FR	Mersey	598	Conservation	OV,DSC	
Burns Peak FR	Murchison	950	Conservation	N,OT,O	OT,N,M-
Buxton River FR	Derwent	3,612	Conservation	SI,P,OT,O,DT	P,D,AD,DT,OT,O
Caroline Creek FR	Mersey	214	Conservation	AC,OT,O	
Christmas Hills FR	Mersey	347	Conservation	SI,OT,O,DSC	
Coppermine Creek FR	Mersey	670	Conservation	R,SI,O,OT	O
Crayfish Creek FR	Murchison	315	Conservation	O,OT	O,OT
Cygnat River FR	Derwent	4,310	Conservation	AD,V,TD,P	AD,D,DT,P,TD
Dalgarth FR*	Mersey	17	Conservation, Recreation	SI,OT	
Deep Gully FR	Murchison	2,537	Conservation	D,DT,M+,BR,OT,O,M-	M+,M-,OT,DT,D
Deep Gully FR Ext	Murchison	845	Conservation	D,DT,M+,BR,OT,O,M-	M+,M-,OT,DT,D
Den Hill FR	Derwent	947	Conservation	D,V,DT	V,DT,D
Den Ranges FR	Bass	400	Conservation	AC,O	
Denison Ridge FR	Huon	148	Conservation	OT,O	O
Derby FR	Bass	200	Conservation	V,OT,O	O
Dial Range FR	Murchison	2,533	Conservation	VW,SI,OT,DSC,AC,R,O	OT,L,M-,O,AC,R,VW
Dickies Ridge FR	Bass/Derwent	621	Conservation	AD,D	DT,AD,D,OV
Dip Falls FR*	Murchison	34	Conservation, Recreation	OT,BR,M+,M-	
Dip River FR	Murchison	2,732	Conservation	M-,BF,M+,NT,OT,BR	M+,M-,OT
Dismal Range FR	Bass	200	Conservation	AD	AD
Dismal Swamp FR*	Murchison	310	Conservation, Recreation	OT,M+,BF	OT,M-
Doctors Peak FR	Bass	3,030	Conservation	O,DSC,SG,AC	SG,O,DSC,AC
Dogs Head Hill FR	Mersey	1,523	Conservation	SI,DSC,O,N,AC,OT	AC,DSC,O
Dove River FR	Mersey	2,424	Conservation	M-,M+,DT,SI,D,OT	DT,D,M+,OT,M-
Drys Bluff FR*	Mersey	680	Conservation, Recreation	O,C,D,SI,DT	D,DT,M+,X
Duck River FR	Murchison	464	Conservation	OT,M-,M+,L,BR	OT
Eastern Tiers FR	Derwent	4,414	Conservation	AD,P	P,AD,OT,O,D,CR,DT
Eastern Tiers FR (North) Ext	Derwent	224	Conservation	AD,P	P,AD,OT,O,D,CR,DT
Eastern Tiers FR (South) Ext	Derwent	274	Conservation	AD,P	P,AD,OT,O,D,CR,DT
Emu Ground FR	Bass	916	Conservation	OV,AC	AC
Emu River FR	Murchison	585	Conservation	SI,OT	OT,O,M-
Esperance River FR	Huon	150	Recreation	R,OT	
Evercreech FR	Bass	52	Conservation, Recreation	SI,O,R	OT
Fishers Tier FR	Bass	270	Conservation	D,DT,V	

Fletchers Hill West FR	Huon	55	Conservation	O,OT	O
Flowerdale River FR	Murchison	290	Conservation	L,SI,OT	
Fords Pinnacle FR	Huon	95	Conservation	OT,P	
Franklin Rivulet FR	Mersey	305	Conservation	AD,AC	AD,AC
Frome FR	Bass	940	Conservation	O,OT,R,SI,M+	M+,OT,R
German Town FR	Bass	940	Conservation	O,SI,OT,SO	SO,O
Griffin FR	Bass	15	Conservation, Recreation	AI	
Hardings Falls FR	Derwent	1,009	Conservation, Recreation	AD,DT	AD,O,TD,DT
Hardings Falls FR Ext	Derwent	927	Conservation	AD,DT	AD,O,TD,DT
Hatfield River FR	Murchison	1,100	Conservation	OT,M-,DT,M+,D	M-,M+,DT,D,NT,OT
Hatfield River FR Ext	Murchison	419	Conservation	OT,M-,DT,M+,D	M-,M+,DT,D,NT,OT
Henty FR	Murchison	106	Conservation	N	M-
Hollybank FR*	Bass	133	Conservation, Recreation, Cultural Heritage	O,AC,AD,OT,SI	O
Hopetoun FR*	Huon	21	Conservation	OT	
Huntsmans Cap FR	Bass	216	Conservation	AC,SO,O	AC,SO
Huskisson River FR	Murchison	700	Conservation	OT	N,O,OT,M-,M+
Jackeys Creek FR	Mersey	211	Conservation	DSC,SI,OT	DSC
Jean Brook FR	Mersey	13	Conservation, Recreation	D,SI	
John Lynch FR	Murchison	3,128	Conservation	BR,M-,NT,N,O,OT	M+,D,M-,N,NT,O,OT,DT
John Lynch FR Ext	Murchison	4,103	Conservation	BR,M-,NT,N,O,OT	M+,D,M-,N,NT,O,OT,DT
Joy Creek FR	Bass	230	Conservation	DT,SI,OT	DT,OT
Julius River FR	Murchison	85	Conservation, Recreation	OT	M-,M+
Kenmere Creek FR	Derwent	228	Conservation	O,OT,TI	OT,TI
Kohls Falls FR	Bass	146	Conservation	R,SI,O	O,R
Lady Binney FR	Derwent	385	Conservation	D,O,OT,DT	R,OT,M-,M+,DT
Lady Nelson FR	Bass	160	Conservation	SI,AD	
Lake Binney FR	Derwent	463	Conservation	D,DT	D,DT
Lake Chisholm FR	Murchison	181	Conservation, Recreation	O,OT,M+	M+,OT
Lake Pieman FR*	Murchison	1,055	Conservation	NT,N,OT	N,OT,M-,M+,NT
Lanes Tier FR	Derwent	217	Conservation	O,OT,TI	OT,TI
Laurel Creek FR	Murchison	1,110	Conservation	DSC,M-,O,OT,SI	O,M-,OT,DSC
Lawrence Rivulet FR	Derwent	14	Conservation		R
Lefroy FR	Bass	3,586	Conservation	AC,DSC,L,O,OT	AC,O,L
Liffey FR*	Mersey	1,055	Conservation, Recreation	SI,NP,D,DT,M+	C,D,DT,M+,M-,PP
Lizard Hill FR	Mersey	93	Conservation	AC,DSC,O,OT,SI	
Lobster Rivulet FR	Mersey	129	Conservation	AC,SI	AC
Long Hill FR	Mersey	558	Conservation	DSC,AD,SI	
Long Ridge FR	Mersey	170	Conservation	DSC	DSC
Lost Falls FR*	Derwent	495	Conservation	P	D,P
Lovells Creek FR	Murchison	545	Conservation	BA,BF,L,NT,OT	M-,NT,M+,BA,OT
Lower Marsh Creek FR	Bass	1,086	Conservation	AC,AD,OT,P,SI,SG,O,SO	AC
Luncheon Hill FR	Murchison	1,030	Conservation	OT,O,M-,N,NT	O,NT,M-,OT,N,M+
Lutregala Creek FR	Huon	108	Conservation	O	
Mackintosh FR	Murchison	1,026	Conservation	O,OT	M+,OT,O,M-,N,NT
Maclaines Creek FR*	Derwent	448	Conservation	M+,P	P
Maggs Mountain FR	Mersey	1,120	Conservation	DT,M-,M+,D,SI	M+,DT,D
Martins Hill FR	Bass	1,186	Conservation	OT,AC	AC
Mathinna Falls FR*	Bass	250	Conservation, Recreation	SI,DT,O,SO,OT	OT,O,DT
Mathinna Falls FR Ext*	Bass	197	Conservation, Recreation	SI,DT,O,SO,OT	OT,O,DT
Meander FR*	Mersey	1,660	Conservation, Recreation	C,SI,D,X,M+,DT	C,M+,M-,DT,D,X
Meetus Falls FR*	Derwent	192	Conservation, Recreation	D,DT	DT,D
Mersey River FR	Mersey	638	Conservation	OT,SI,VW,DT	D,DT,VW
Mersey White Water FR	Mersey	233	Conservation, Recreation	DT,DSC,D	D
Midday Hill FR	Bass	310	Conservation	DT,V,D	
Milkshake Hills FR	Murchison	290	Conservation, Recreation	OT	O
Millers Bluff FR	Mersey	670	Conservation	D,DT,DSC	DT,D,DSC
Montagu River FR	Murchison	1,013	Conservation	BA,BF,OT,L	M-,M+,L
Montagu Swamp FR	Murchison	1,582	Conservation	M-,O,L,BF,N,NT,BA,OT	M-,O
Mt Arthur FR	Bass	871	Conservation	SI,O,OT,DT	O,AD,DT,M+,OT
Mt Bruny FR	Huon	1,336	Conservation	OT,O	O,OT
Mt Careless FR	Mersey	690	Conservation	M+,O,OT,R,SI	O,OT,R
Mt Dromedary FR	Derwent	861	Conservation	D,O,P,TI	TI,D,O
Mt Horror FR	Bass	1,134	Conservation	R,OT,O	M+,O,R
Mt Kershaw FR	Murchison	338	Conservation	NT	OT,NT,M-,M+
Mt Mangana FR	Huon	866	Conservation	OT,O,SI,D,SU,R	D,OT
Mt Maurice FR	Bass	6,064	Conservation, Recreation	OT,R,O,M+,DT,D,SI	R,M+,DT
Mt Maurice FR Ext	Bass	681	Conservation	OT,R,O,M+,DT,D,SI	R,M+,DT

Mt Midway FR	Huon	470	Conservation	R,D,OT,O,DT	O,OT
Mt Morrison FR	Derwent	739	Conservation	O,P	P
Mt Ponsonby FR	Derwent	465	Conservation	P,DT,D,AS,AD	P,D
Mt Puzzler FR	Bass/Derwent	410	Conservation, Recreation	D,AD	AD,D
Mt Stronach FR	Bass	1,038	Conservation	AC,R,OV,O,OT	M+,R,AC
Mt Thunderbolt FR	Derwent	322	Conservation	OT,AD,O	OT
Mt Victoria FR	Bass	8,138	Conservation	SI,OT,O,M+,DT,D,R	D,M+,R,OT,DT,C,O
Mt Wedge FR	Derwent	12	Conservation		NT
Nicholas Range FR	Bass	822	Conservation	AC,DT,SO,OT,O	DT,OT,SO
North Esk FR	Bass	625	Conservation	AI,AD,DT,SI	AD
North Scottsdale FR	Bass	4,091	Conservation	OT,AC,O	AC,M+
North Styx FR	Derwent	4,222	Conservation	C,M-,OT,R,SI,M+,DT,D	M-,D,DT,M+,OT,R
Nunamara FR	Bass	289	Conservation	AD,D	
Old Park FR	Murchison	1,585	Conservation	DT,D,RO,NT,N,M-,M+	D,NT,O,OT,M+,RO,DT,L,M
Oldina FR	Murchison	12	Recreation		
Ouse River FR	Derwent	364	Conservation	O,D,OT,TI,DT	OT
Oxberry Plains FR	Bass	330	Conservation	O,OT,DSC	O,NP,DSC
Paradise Plains FR	Bass	440	Conservation	DT,SI,OT,R,O	M+,R,OT
Parangana Sugarloaf FR	Mersey	288	Conservation	DT,D	D
Peaked Hill FR	Mersey	235	Conservation	O,DSC	
Pepper Hill FR	Bass	435	Conservation	SO,OT	SO
Pipers River FR	Bass	200	Conservation	O,SI,OT,AD	O
Plains Creek FR	Murchison	862	Conservation	OT,NT,N,M-,BR,L,BA,BF	NT,O,BA
Porcupine Hill FR	Mersey	213	Conservation	DSC,OT,AC	
Promised Land FR	Mersey	120	Conservation	OT,SI,O	
Prossers FR	Bass	1,115	Conservation	AD	AD
Pruana FR	Murchison	3,045	Conservation	SI,O,M-,M+,BR,OT	M+,M-,OT
Quamby Bluff FR	Mersey	955	Conservation, Recreation	DT,OT,SI	M-,X,M+,DT,D
Rayners Hill FR	Bass	331	Conservation	SO,O,OT	OT
Rebecca Creek FR	Murchison	346	Conservation	N,OT,BR	OT,N,M+,M-
Reedy Marsh FR	Mersey	3,880	Conservation	VW,DSC,AD	DSC,AD
Remarkable Rock FR	Derwent	389	Conservation	PJ,DT,D	PJ,D
Rimons Hill FR	Huon	410	Conservation	DT,OT,P	M+,OT,DT
Ringarooma River FR	Bass	360	Conservation	SI,R,DT	DT,M+,R
River Hill FR	Bass	340	Conservation	V,DT	
Roaring Magg Hill FR	Mersey	118	Conservation	AD,SI	
Royal George FR	Derwent	770	Conservation	AC	AS,AC
Sand River FR*	Derwent	79	Conservation	AS	OT,P
Sandspit River FR*	Derwent	232	Conservation, Recreation	SI,OT,R	R,OT,O,M+
Savage River Pipeline FR (North)	Murchison	16,873	Conservation	N,BR,L,OT,M-,NT,O,M+	M-,L,NT,N,M+,O,OT
Savage River Pipeline FR (South)	Murchison	14,169	Conservation	N,BR,L,OT,M-,NT,O,M+	M-,L,NT,N,M+,O,OT
Sawmill Creek FR	Murchison	870	Conservation	D,O,DT,M+,OT	D,DT,L,M+,M-,OT,O,N
Sawpit Ridge FR	Bass	1,710	Conservation	DT,SO,SI,OT,D,AC,O	D,DT,SO
Scamander FR	Bass	210	Conservation, Recreation	AC,SO	SO
Shakespeare Hills FR	Murchison	2,158	Conservation, Recreation	N,O,OT,BR,M-	N,O,OT
Shingle Hill FR*	Derwent	70	Conservation	P	P,O
Snaky Creek FR	Derwent	1,274	Conservation	AD,D,DT	V,AD,DT,D
Snow Hill FR	Derwent	1,327	Conservation	D,DT	D,DT
Snowy River FR	Derwent	89	Conservation	D	D
South Esk FR	Bass	1,053	Conservation	M+,DT,SI,R,OT,O,D	DT,OT,M+,D,R,O
South Esk FR Ext	Bass	284	Conservation	M+,DT,SI,R,OT,O,D	DT,OT,M+,D,R,O
South Weld FR	Huon	46	Conservation	M-,OT	OT
Springfield FR	Bass	43	Conservation, Recreation	SI	
Staverton FR	Mersey	110	Conservation	SI,O,OT	OT,O
Stringybark FR	Derwent	33	Conservation		OT
Styx Tall Trees FR	Derwent	337	Conservation	M+,R,OT	R,OT,M-,M+
Sumac FR	Murchison	9,850	Conservation	M-,OT,O,N,BR,NT	OT,O,M-,M+
Swan River FR	Derwent	3,153	Conservation	D,OT,P,TD,V,AD	TD,AD,D,V,OT,P,O
Tahune FR*	Huon	102	Conservation, Recreation	OT	OT,H
Tanina Bluff FR	Derwent	244	Conservation	P,D,TI,DT	P,DT,D
Tarraleah FR	Derwent	627	Conservation	D,SI,DT	DT
Teds Flat FR	Bass	249	Conservation	AI	
Teepookana FR	Murchison	625	Conservation, Cultural Heritage	BR,M+,NT,H,N,M-,X	N
Tippogoree Hills FR	Bass	920	Conservation	AD,AC,SI,OT,O	AD
Tombstone Creek FR	Bass	485	Conservation	R,SI,DT	DT,R,M+
Tooms Lake FR	Derwent	3,412	Conservation	V,PJ,D,AD	VW,AD,D,DT,PJ,V,O
Tooms Lake FR Ext	Derwent	193	Conservation	V,PJ,D,AD	VW,AD,D,DT,PJ,V,O

Trowutta FR	Murchison	2,535	Conservation	M-,OT,M+,L,BR	M+,M-,OT
Trowutta FR Ext	Murchison	327	Conservation	M-,OT,M+,L,BR	M+,M-,OT
Tungatinah FR	Derwent	180	Conservation	DT	DT
Upper Natone FR	Murchison	3	Recreation		
Virginstow FR	Mersey	460	Conservation	DSC,O,AC,AD	DSC
Waratah Creek FR	Bass	520	Conservation	O,OT,R,SI	M+,O,OT
Warra Creek FR	Murchison	575	Conservation	N,O,OT	O
Warrawee FR*	Mersey	7	Conservation, Recreation	AC,DSC	
Warrawee FR Ext*	Mersey	218	Conservation, Recreation	AC,DSC	
Wayatinah FR	Derwent	498	Conservation	O,OT,D	OV,OT,O
Weavers Creek FR	Bass	779	Conservation	O,D,OT,R,AD,DT	DT,O
Welcome Swamp FR	Murchison	163	Conservation	BF,BA,L,OT	BA,OT
Wentworth Creek FR	Derwent	250	Conservation	DT	DT
Wes Beckett FR	Murchison	29	Conservation, Recreation	OT	M-
Wielangta FR*	Derwent	846	Conservation	P,SI,M+,OT	P,OT,D,O
Wild Bee FR	Huon	535	Conservation	D,SI,OT,O	M+,OT,D
Winterbrook Falls FR	Mersey/Murch	563	Conservation	N,DT	SU,X,D,M-,DT,M+
Yellow Bluff Creek FR	Derwent	481	Conservation	GG,OT,AC,O	OT,O,GG,AC
Informal Reserves	All	292,000	Conservation, Cultural Heritage	AC,AD,AI,AS,BA,BF,BR,C,CR,D,DSC,DT,F,G,GG,H,KG,L,N,NT,NV,O,OT,OV,P,PJ,PS,R,R O,SG,SI,SO,SU,TD,TI,V,VW,X,M+,M-	AC,AD,AI,AS,BA,C,CR,D,D SC,DT,F,GG,H,L,N,NT,O,O T,OV,P,PJ,PS,R,RO,SG,S O,SU,TD,TI,V,X,M+,M-

\* Forest Reserves NOT proclaimed under the Mineral Resource Development Act 1995.

### Forest communities present in reserves within the plan area

AC	<i>Eucalyptus amygdalina</i> coastal forest and woodland
AD	<i>Eucalyptus amygdalina</i> forest and woodland on dolerite
AI	<i>Eucalyptus amygdalina</i> inland forest and woodland (undifferentiated)
AS	<i>Eucalyptus amygdalina</i> forest and woodland on sandstone
C	<i>Eucalyptus coccifera</i> forest and woodland
D	<i>Eucalyptus delegatensis</i> dry forest and woodland
GG	<i>Eucalyptus globulus</i> dry forest and woodland
N	<i>Eucalyptus nitida</i> dry forest and woodland
O	<i>Eucalyptus obliqua</i> dry forest and woodland
OV	<i>Eucalyptus ovata</i> forest and woodland
PJ	<i>Eucalyptus pauciflora</i> forest and woodland on dolerite
P	<i>Eucalyptus pulchella</i> forest and woodland
RO	<i>Eucalyptus rodwayi</i> forest and woodland
DSC	<i>Eucalyptus amygdalina</i> - <i>Eucalyptus obliqua</i> damp sclerophyll forest
SG	<i>Eucalyptus sieberi</i> forest and woodland on granite
SO	<i>Eucalyptus sieberi</i> forest and woodland not on granite substrates
TD	<i>Eucalyptus tenuiramis</i> forest and woodland on dolerite
T	<i>Eucalyptus tenuiramis</i> forest and woodland on granite
TI	<i>Eucalyptus tenuiramis</i> forest and woodland on sediments
V	<i>Eucalyptus viminalis</i> grassy forest and woodland
SI	<i>Acacia dealbata</i> forest
BF	<i>Acacia melanoxylon</i> swamp forest
BR	<i>Acacia melanoxylon</i> on rises
CR	<i>Callitris rhomboidea</i> forest
L	<i>Leptospermum lanigerum</i> - <i>Melaleuca squarrosa</i> swamp forest
NP	Notelaea - Pomaderris - Beyeria forest
H	<i>Lagarostrobos franklinii</i> rainforest and scrub
X	<i>Athrotaxis selaginoides</i> rainforest
M-	<i>Nothofagus</i> / <i>Phyllocladus</i> short rainforest
M+	<i>Nothofagus</i> - <i>Atherosperma</i> rainforest
PP	<i>Athrotaxis cupressoides</i> rainforest
BA	<i>Eucalyptus brookeriana</i> wet forest
DT	<i>Eucalyptus delegatensis</i> wet forest (undifferentiated)
NT	<i>Eucalyptus nitida</i> wet forest (undifferentiated)
OT	<i>Eucalyptus obliqua</i> wet forest (undifferentiated)
R	<i>Eucalyptus regnans</i> forest
SU	<i>Eucalyptus subcrenulata</i> forest and woodland
VW	<i>Eucalyptus viminalis</i> wet forest
F	<i>Athrotaxis selaginoides</i> - <i>Nothofagus gunnii</i> short rainforest
G	<i>Eucalyptus viminalis</i> - <i>Eucalyptus globulus</i> coastal shrubby forest
KG	King Island <i>Eucalyptus globulus</i> / <i>Eucalyptus brookeriana</i> / <i>Eucalyptus viminalis</i> forest
PS	<i>Eucalyptus pauciflora</i> forest and woodland on sediments

## APPENDIX 6

### Forestry Tasmania managed land contribution to statewide native forest community reservation

Table A. All native forest communities (including oldgrowth component)<sup>3,5,7</sup>.

Native Forest Community <sup>5</sup>	Total Statewide Area (ha) <sup>4</sup>	% Statewide reservation <sup>4</sup>	Forestry Tasmania managed land <sup>3</sup>			
			Formal Reserves		Informal Reserves	
			Area <sup>4</sup> (ha)	% <sup>6</sup>	Area <sup>4</sup> (ha)	% <sup>6</sup>
<i>Acacia melanoxylon</i> forest on flats	9,000	31.2	2,000	16.9	400	4.1
<i>Acacia melanoxylon</i> forest on rises	13,000	39.2	800	6.3	1,000	9.1
<i>Allocasuarina verticillata</i> forest	1,000	45.8	0	0.0	0	0.0
<i>Banksia serrata</i> woodland	200	74.3	0	0.0	0	0.0
Callidendrous and thamnic rainforest on fertile sites	186,000	77.1	47,000	25.1	26,000	14.0
<i>Callitris rhomboidea</i> forest	800	63.1	50	5.8	80	10.8
Coastal <i>E. amygdalina</i> dry sclerophyll forest	185,000	38.3	13,000	7.0	7,000	3.9
Dry <i>E. delegatensis</i> forest	287,000	35.8	9,000	3.0	25,000	8.7
Dry <i>E. nitida</i> forest	159,000	89.3	3,000	1.7	6,000	3.9
Dry <i>E. obliqua</i> forest	159,000	36.1	8,000	5.1	16,000	9.9
<i>E. amygdalina</i> forest on dolerite	175,000	19.8	15,000	8.7	8,000	4.7
<i>E. amygdalina</i> forest on sandstone	30,000	27.8	100	0.5	3,000	10.6
<i>E. brookeriana</i> wet forest	4,000	37.3	900	21.2	70	1.6
<i>E. coccifera</i> dry forest	55,000	78.2	100	0.3	4,000	6.9
<i>E. morrisbyi</i> forest	20	93.6	0	0.0	0	0.0
<i>E. pauciflora</i> on Jurassic dolerite	19,000	18.9	200	1.0	1,000	7.9
<i>E. pauciflora</i> on sediments	16,000	34.5	0	0.0	1,000	8.9
<i>E. pulchella</i> / <i>E. globulus</i> / <i>E. viminalis</i> grassy shrubby dry sclerophyll forest	150,000	31.6	10,000	6.8	11,000	7.2
<i>E. regnans</i> forest	68,000	27.1	6,000	8.7	8,000	11.5
<i>E. risdonii</i> forest	400	44.6	0	0.0	0	0.0
<i>E. rodwayi</i> forest	9,000	11.5	100	1.4	200	2.2
<i>E. sieberi</i> forest on granite	18,000	31.3	800	4.6	2,000	10.2
<i>E. sieberi</i> on other substrates	46,000	27.0	7,000	14.3	3,000	6.9
<i>E. subcrenulata</i> forest	10,000	86.3	90	0.9	1,000	9.9
<i>E. tenuiramis</i> on dolerite	8,000	75.8	3,000	31.9	900	11.1
<i>E. tenuiramis</i> on granite	3,000	93.3	0	0.0	0	0.0
<i>E. viminalis</i> and/or <i>E. globulus</i> coastal shrubby forest	1,000	37.2	0	0.0	0	0.1
<i>E. viminalis</i> / <i>E. ovata</i> / <i>E. amygdalina</i> / <i>E. obliqua</i> damp sclerophyll forest	38,000	33.9	8,000	20.6	3,000	7.0
Furneaux <i>E. nitida</i> forest	30,000	63.0	0	0.0	0	0.0
Furneaux <i>E. viminalis</i> forest	100	87.2	0	0.0	0	0.0
Grassy <i>E. globulus</i> forest	14,000	47.4	10	0.1	100	0.8
Grassy <i>E. viminalis</i> forest	112,000	4.4	1,000	0.9	300	0.3
Huon Pine forest	9,000	85.3	10	0.1	100	1.5
Inland <i>E. amygdalina</i> forest	25,000	24.9	500	2.2	400	1.4
Inland <i>E. tenuiramis</i> forest	54,000	20.4	700	1.4	600	1.1
King Billy Pine forest	20,000	89.5	70	0.4	1,000	5.9
King Billy Pine with deciduous beech	800	93.8	0	0.0	20	2.5
King Island <i>E. globulus</i> / <i>E. brookeriana</i> / <i>E. viminalis</i> forest	2,000	25.0	0	0.0	300	13.9
<i>Leptospermum</i> spp./ <i>Melaleuca squarrosa</i> swamp forest	19,000	60.5	1,000	6.8	400	1.9
<i>Melaleuca ericifolia</i> forest	600	67.0	0	0.0	0	0.0
<i>Notelaea ligustrina</i> and/or <i>Pomaderris apetala</i> forest	300	80.0	10	5.2	0	0.0
Pencil Pine forest	300	99.9	0	0.9	0	0.0
Pencil Pine with deciduous beech	200	100.0	0	0.0	0	0.0
Shrubby <i>E. ovata</i> forest	7,000	7.8	70	1.0	70	1.0
Silver wattle ( <i>Acacia dealbata</i> ) forest	50,000	30.4	4,000	8.8	6,000	11.8
Tall <i>E. delegatensis</i> forest	272,000	37.0	10,000	3.6	26,000	9.4
Tall <i>E. nitida</i> forest	74,000	92.5	1,000	1.5	1,000	2.0
Tall <i>E. obliqua</i> forest	396,000	32.0	24,000	6.0	40,000	10.2
Thamnic rainforest on less fertile sites	376,000	86.8	22,000	5.9	39,000	10.3
Wet <i>E. viminalis</i> forest on basalt	4,000	24.3	400	11.2	100	3.2
<b>TOTAL<sup>2</sup></b>	<b>3,116,000</b>	<b>47.0</b>	<b>198,000</b>	<b>6.3</b>	<b>244,000</b>	<b>7.8</b>

1. Areas rounded to nearest 10, 100 or 1000 hectares.

2. Totals not sum of columns but rounded actual totals. Percentages based on actual area, not the rounded totals.

3. Forestry Tasmania managed land includes state forest, commonwealth-leased crown land, and Forestry Tasmania plantations on private land.

4. Forestry Tasmania managed areas/percentages as at 30 June 2007. Statewide areas/percentages source: Sustainability Indicators for Tasmanian Forests 2001-2006.

5. Native forest types only (including oldgrowth communities). The oldgrowth component of native forest communities is summarised separately in Appendix 6, Table B.

6. Percentage of statewide native forest community total.

7. This table reflects native forest communities only. Non-forest communities and plantation communities are not included.

RFA Priority Forest Communities, protected on public land.	RFA Priority Communities - Oldgrowth component only.

Table B. Oldgrowth native forest communities only (subset of Table A)<sup>3,5,7</sup>

Native Forest Community <sup>5</sup>	Total Statewide Area (ha) <sup>4</sup>	% Statewide reservation <sup>4</sup>	Forestry Tasmania managed land <sup>3</sup>			
			Formal Reserves		Informal Reserves	
			Area <sup>4</sup> (ha)	% <sup>6</sup>	Area <sup>4</sup> (ha)	% <sup>6</sup>
<i>Acacia melanoxylon</i> forest on flats						
<i>Acacia melanoxylon</i> forest on rises						
<i>Allocasuarina verticillata</i> forest	1,000	56.4	0	0.0	0	0.0
<i>Banksia serrata</i> woodland	200	74.3	0	0.0	0	0.0
Callidendrous and thamnic rainforest on fertile sites	158,000	82.9	42,000	26.2	23,000	14.7
<i>Callitris rhomboidea</i> forest	600	60.0	50	7.8	80	12.8
Coastal <i>E. amygdalina</i> dry sclerophyll forest	40,000	67.0	2,000	3.8	2,000	4.9
Dry <i>E. delegatensis</i> forest	79,000	68.2	4,000	5.3	12,000	15.3
Dry <i>E. nitida</i> forest	107,000	93.2	2,000	1.8	5,000	4.8
Dry <i>E. obliqua</i> forest	46,000	66.6	3,000	7.5	9,000	19.1
<i>E. amygdalina</i> forest on dolerite	30,000	62.8	10,000	33.5	6,000	18.5
<i>E. amygdalina</i> forest on sandstone	7,000	64.4	0	0.1	3,000	38.0
<i>E. brookeriana</i> wet forest	600	49.9	30	5.5	0	0.1
<i>E. coccifera</i> dry forest	33,000	88.0	90	0.3	2,000	5.6
<i>E. morrisbyi</i> forest						
<i>E. pauciflora</i> on Jurassic dolerite	2,000	60.8	80	4.4	200	10.6
<i>E. pauciflora</i> on sediments	4,000	73.1	0	0.0	700	17.3
<i>E. pulchella</i> / <i>E. globulus</i> / <i>E. viminalis</i> grassy shrubby dry sclerophyll forest	63,000	52.8	8,000	13.4	9,000	14.6
<i>E. regnans</i> forest	12,000	62.1	2,000	18.6	2,000	19.1
<i>E. risdonii</i> forest	10	8.0	0	0.0	0	0.0
<i>E. rodwayi</i> forest	700	22.9	90	12.1	30	4.4
<i>E. sieberi</i> forest on granite	1,000	83.8	100	10.6	300	29.2
<i>E. sieberi</i> on other substrates	2,000	49.8	400	23.7	400	22.6
<i>E. subcrenulata</i> forest	7,000	90.0	50	0.7	700	8.8
<i>E. tenuiramis</i> on dolerite	5,000	88.9	2,000	44.3	700	13.0
<i>E. tenuiramis</i> on granite	3,000	93.9	0	0.0	0	0.0
<i>E. viminalis</i> and/or <i>E. globulus</i> coastal shrubby forest	900	19.2	0	0.0	0	0.0
<i>E. viminalis</i> / <i>E. ovata</i> / <i>E. amygdalina</i> / <i>E. obliqua</i> damp sclerophyll forest	2,000	67.9	800	33.0	400	18.1
Furneaux <i>E. nitida</i> forest						
Furneaux <i>E. viminalis</i> forest						
Grassy <i>E. globulus</i> forest	5,000	84.0	10	0.2	60	1.3
Grassy <i>E. viminalis</i> forest	8,000	12.0	100	1.3	100	1.3
Huon Pine forest	8,000	96.5	0	0.0	50	0.7
Inland <i>E. amygdalina</i> forest	3,000	30.1	0	0.0	50	1.7
Inland <i>E. tenuiramis</i> forest	8,000	35.6	100	1.6	200	2.4
King Billy Pine forest	17,000	97.5	40	0.2	1,000	6.6
King Billy Pine with deciduous beech	400	97.0	0	0.0	20	5.3
King Island <i>E. globulus</i> / <i>E. brookeriana</i> / <i>E. viminalis</i> forest						
<i>Leptospermum</i> spp./ <i>Melaleuca squarrosa</i> swamp forest	10,000	91.5	700	7.3	100	1.4
<i>Melaleuca ericifolia</i> forest	300	65.1	0	0.0	0	0.0
<i>Notelaea ligustrina</i> and/or <i>Pomaderris apetala</i> forest	300	84.6	10	4.9	0	0.0
Pencil Pine forest	300	99.9	0	0.9	0	0.0
Pencil Pine with deciduous beech	200	100.0	0	0.0	0	0.0
Shrubby <i>E. ovata</i> forest	500	36.1	50	10.8	10	2.7
Silver wattle ( <i>Acacia dealbata</i> ) forest						
Tall <i>E. delegatensis</i> forest	100,000	64.0	4,000	4.2	13,000	12.6
Tall <i>E. nitida</i> forest	50,000	97.3	600	1.1	600	1.2
Tall <i>E. obliqua</i> forest	79,000	66.6	8,000	10.3	13,000	16.6
Thamnic rainforest on less fertile sites	335,000	91.6	20,000	6.0	34,000	10.3
Wet <i>E. viminalis</i> forest on basalt	100	73.0	100	81.0	0	0.0
<b>TOTAL</b>	<b>1,229,000</b>	<b>79.2</b>	<b>112,000</b>	<b>9.1</b>	<b>139,000</b>	<b>11.3</b>

1. Areas rounded to nearest 10, 100 or 1000 hectares.

2. Totals not sum of columns but rounded actual totals. Percentages based on actual area, not the rounded totals.

3. Forestry Tasmania managed land includes state forest, commonwealth-leased crown land, and Forestry Tasmania plantations on private land.

4. Forestry Tasmania managed areas/percentages as at 30 June 2007. Statewide areas/percentages source: Sustainability Indicators for Tasmanian Forests 2001-2006.

5. Oldgrowth component of native forest communities only.

6. Percentage of statewide oldgrowth reserved.

7. This table reflects the oldgrowth component of native forest communities only. Non-forest communities and plantation communities are not included.

Not an oldgrowth community

RFA Priority Forest Communities, protected on public land.

RFA Priority Communities - Oldgrowth component only.

## APPENDIX 7

### Special Management Zones used in the MDC System

Ag	Agricultural	FIMe	<i>Melaleuca ericifolia</i> coastal swamp forest
Ap	Apiary	FIMp	Flora - interim management agreement
<b>Cu</b>	<b>Historical/Aboriginal (general)</b>	FINp	<i>Notelaea ligustrina/Pomaderris apetela</i> forest
CuA	Aboriginal cultural values	FIOv	Shrubby <i>E. ovata</i> forest
CuH	Historical cultural values	FIPj	<i>E. pauciflora</i> forest on dolerite
CuMa	Cultural values - Management Agreement	FIRFA	Supplementary RFA reserves
CuT	Cultural values - traditional use	FIRi	<i>E. risdonii</i> forest
<b>Fa</b>	<b>Fauna (general)</b>	FIRo	<i>E. rodwayi</i> forest
Fa40	Forty-spotted pardalote	FIRr	Relict rainforest
FaBbc	Burnie burrowing crayfish	FISe	Special environments/communities
FaBsb	Broad-toothed stag beetle	FISg	<i>E. sieberi</i> forest on granite
FaBvw	Blind velvet worm	FISo	<i>E. sieberi</i> forest on other substrates
FaBzb	Bornemissza stag beetle	FITi	<i>E. tenuiramis</i> inland forest
FaCaG	Caddisfly, Australian grayling	FITs	Flora - threatened species
FaCf	Cave fauna	FIV	Grassy <i>E. viminalis</i> forest
FaCs	Chaostola skipper	FIVf	Furneaux <i>E. viminalis</i> forest
FaDcf	Denison crayfish	FIVr	Variable retention, retained forest
FaDg	Dwarf galaxiid	FIVw	<i>E. viminalis</i> wet forest
FaGfc	Giant freshwater crayfish	Fu	Fuel reduction
FaGg	Grey goshawk	<b>Ge</b>	<b>Geoconservation (general)</b>
FaGls	Great Lakes species	GeA	Geoconservation - aeolian
FaGvw	Giant velvet worm	GeC	Geoconservation - coastal
FaGxs	Galaxias fish species	GeF	Geoconservation - fluvial
FaHs	Hydrobiid snails	GeG	Geoconservation - glacial
FaKes	Keeled Snail	GeK	Geoconservation - karst
FaMa	Fauna – Management Agreement	GeMa	Geoconservation - Management Agreement
FaMbc	Mt. Arthur burrowing crayfish	GeSG	Geoconservation - soils/geology
FaMo	Masked owl	GeWet	Flat areas too wet to access
FaMp	Fauna – interim management agreement	Hd	Savage River pipeline
FaMsb	Mount Mangana stag beetle	<b>He</b>	<b>Pest/disease/weed locality (general)</b>
FaNvw	North west velvet worm	HePCA	Phytophthora containment area
FaPbb	Ptunarra brown butterfly	HePMA	Phytophthora management area
FaSb	Simsons stag beetle	<b>HZ</b>	<b>Hazard (general)</b>
FaSbc	Scottsdale burrowing crayfish	HZE	Erosion hazard
FaSe	Special environments/habitat	HZL	Landslide hazard
FaSg	Schayers grasshopper	Lo	Slow growing native forest/regeneration problems
FaSks	Skemps snail	<b>Ls</b>	<b>Landscape (general)</b>
FaSp	Swift parrot	LsS	Landscape - skylines
FaStq	Spotted-tailed quoll	<b>Rc</b>	<b>Recreation/education area (general)</b>
FaTb	Tasmanian bettong	RcMa	Recreation area - Management Agreement
FaWhs	Wildlife habitat strip	<b>Rs</b>	<b>Research area (general)</b>
FaWse	White-bellied sea eagle	RsBc	Research, Biology and Conservation Branch
FaWte	Wedge-tailed eagle	RsBN	Benchmark/natural history area
<b>FI</b>	<b>Flora (general)</b>	RsNf	Research, Native Forests Branch
FIAi	Inland <i>E. amygdalina</i> forest	RsOo	Research, Outside Organisations
FIBa	<i>E. brookeriana</i> wet forest	RsPI	Research, Plantations Branch
FICAR	CAR contributing community	RsSo	Seed Orchard
FICom	RFA priority communities	RsTI	Flora, fauna type locality
FICr	<i>Callitris rhomboidea</i> forest	RsTR	Field trial/research site
FIDr	Disease refugia	St	Special timbers management
FIDsc	<i>E. viminalis/E. ovata/E. amygdalina/E. obliqua</i> damp sclerophyll forest	Ut	Utilities
FIG	<i>E. viminalis/E. globulus</i> coastal forest	Wa	Water intake management areas
FIGg	Grassy <i>E. globulus</i> forest	WaC4s	Class 4 Stream Guidelines
FIGt	Giant Trees		
FIKg	King Island <i>E. globulus/E. brookeriana/E. viminalis</i> forest		
FIMa	Flora - Management Agreement		

## Appendix 8

### Giant Trees

#### Tasmania's Ten Tallest Giant Trees

Height (m)	Diameter (cm)	Volume (m <sup>3</sup> )	Species	Tree ID	Name	Location	Year last measured
97	290	164	<i>Eucalyptus regnans</i>	TT326	Icarus Dream	Styx Tall Trees Forest Reserve	2005
96	380	234	<i>Eucalyptus regnans</i>	TT94	Mount Tree	Styx Tall Trees Forest Reserve	2001
94	349	205	<i>Eucalyptus regnans</i>	TT31		Styx Tall Trees Forest Reserve	2002
93	339	163	<i>Eucalyptus regnans</i>	TT99	Damocles	Diogenes Creek	2003
92	268	140	<i>Eucalyptus regnans</i>	TT34		Styx Tall Trees Forest Reserve	2002
92	247	125	<i>Eucalyptus regnans</i>	TT36		Styx Tall Trees Forest Reserve	2002
92	302	163	<i>Eucalyptus regnans</i>	TT327	Medusa	Styx Tall Trees Forest Reserve	2005
92	392	236	<i>Eucalyptus regnans</i>	TT182	Plumpton Tree	Counsel	2004
92	345	196	<i>Eucalyptus regnans</i>	TT32		Styx Tall Trees Forest Reserve	2003
92	328	183	<i>Eucalyptus regnans</i>	TT24		Styx Tall Trees Forest Reserve	2004

#### Tasmania's Ten Most Massive Giant Trees

Height (m)	Diameter (cm)	Volume (m <sup>3</sup> )	Species	Tree ID	Name	Location	Year last measured
82	554	368	<i>Eucalyptus globulus</i>	TT372		Johns Road	2006
87	544	360	<i>Eucalyptus regnans</i>	TT48	Arve Big Tree	Arve	2000
75	580	358	<i>Eucalyptus regnans</i>	TT38	Two Towers	Jacques Road	2006
78	593	350	<i>Eucalyptus regnans</i>	TT19	007	Conways Road	2003
85	560	347	<i>Eucalyptus regnans</i>	TT69	Chapel Tree	Skeleton Road	2003
82	515	346	<i>Eucalyptus regnans</i>	TT191	Still Sorrow	Glow Worm Creek	2003
79	652	344	<i>Eucalyptus regnans</i>	TT328	Big Foot	Arve	2005
61	672	341	<i>Eucalyptus obliqua</i>	TT360		Reynolds Falls Nature Reserve	2005
53	539	337	<i>Eucalyptus obliqua</i>	TT22	Gothmog	Jacques Road	2002
89	490	320	<i>Eucalyptus regnans</i>	TT192	Old Regret	Glow Worm Creek	2003

## APPENDIX 9

### Summary of leases and licences in state forests

<b>Leases</b>	<b>Area (ha)</b>	<b>Number</b>
Agriculture/grazing	560	11
Buildings	160	28
Communications	10	94
Dam/drainage	80	21
Energy generation	360	4
Hunting	1,720	19
Municipal Tips	60	12
Pipe/powerline	10	18
Plantation Forestry	380	19
Recreation/tourism	810	19
Road/access	10	3
<b>Total<sup>1</sup></b>	<b>4,160</b>	<b>248</b>

<b>Licences</b>	<b>Area (ha)</b>	<b>Number</b>
Agriculture/grazing	420	23
Buildings	2	5
Communications	0	3
Dam/drainage	2	2
Hunting	10,360	5
Pipe/powerline	4	4
Recreation/tourism	4,810	5
Road/access	80	16
<b>Total<sup>1</sup></b>	<b>15,690</b>	<b>63</b>

1. Totals are rounded actual total.

## APPENDIX 10

### Summary of activities and facilities available in state forests

<b>Activities</b>
Self Guided Interpretation
Guided Interpretation
Short Walk
Day Walk
Overnight Walk
Education
Cultural Heritage
Mountain Bike Riding
Trail Bike Riding
Horse Riding
Boating
Canoeing
Fishing
Hang Gliding
Special Events
<b>Facilities</b>
Disabled Access
Info/Visitor Centres
Toilets
Gas Barbecues
Wood Barbecues
Picnic Shelters
Picnic Areas
Fireplaces
Camp Sites
Caravan Sites
Boat Ramps
Walking Tracks
Playground Equipment
Forest Drives
<b>Site Types</b>
Waterfalls
Lookouts
Lakes
Nature Trails

## APPENDIX 11

### Main legislation, policies and codes directing the implementation of sustainable forest management

Tasmanian legislation, policies and codes:

Main legislation	Agency	Purpose
Aboriginal Relics Act 1975	Department of Environment, Parks, Heritage and the Arts	To provide for the identification and protection of all Aboriginal relics (sites).
Agricultural and Veterinary Chemicals (Control of use) Act 1995	Department of Primary Industries and Water	Prevents restricted chemicals being used without a permit. Requires approved labelling in accordance with the Code of Practice for the Supply and Use of Veterinary Chemical Products 2001.
Environmental Management and Pollution Control Act 1994	Department of Environment, Parks, Heritage and the Arts	The fundamental basis of EMPCA is the prevention, reduction and remediation of environmental harm. It identifies notification requirements for environmental incidents.
Fire Service Act 1979	Department of Health and Human Services (Tasmania Fire Service)	Provides for the control and use of fire in the urban and rural environment.
Forest Practices Act 1985	Forest Practices Authority	Establishes the <i>Forest Practices Code</i> and <i>Forest Practices System</i> to protect environmental values on any land subject to forest operations.
Forest Practices Code 2000	Forest Practices Authority	The code is a legal instrument under the <i>Forest Practices Act 1985</i> . The Act requires that all forest operations must have a Forest Practices Plan prepared that is in accordance with the Forest Practices Code. The code is prepared and approved by the Forest Practices Authority and provides a set of standards to protect environmental values during forest operations.
Forestry Act 1920	Forestry Tasmania	Empowers Forestry Tasmania with the responsibility for the control and management of forest products and forest operations for state forests.
Historic Cultural Heritage Act 1995	Department of Environment, Parks, Heritage and the Arts	To identify, assess and protect historic (post settlement) cultural heritage.
Land Use Planning and Approvals Act 1993	Department of Justice	Provides for land use planning and approvals except for forest practices specifically regulated by the Forest Practices Act 1985.
Mineral Resources Development Act 1995	Department of Infrastructure, Energy and Resources	Mineral exploration and fossicking.
Nature Conservation Act 2002	Department of Primary Industries and Water	Provides for the declaration of certain types of reserves and sets out the values and purposes of each reserve class.
Threatened Species Protection Act 1995	Department of Primary Industries and Water	To provide for the conservation and management of scheduled threatened species of flora and fauna.
Water Management Act 1999	Department of Primary Industries and Water	Management of ground and surface water.
Weed Management Act 1999 and Weed Management Regulations 2000	Department of Primary Industries and Water	Requires the landowner to destroy, prevent breeding of, control, eradicate or reduce spread of designated weeds depending on the requirement for listed weed species.
Workplace Health and Safety Act 1995, Workplace Health and Safety Regulations 1998	Workplace Standards Tasmania	Provides for the health and safety of persons employed, engaged and affected by industry.
Permanent Native Forest Estate Policy 2007	Forest Practices Authority	Ensures that Tasmania maintains a permanent forest estate that comprises areas of native forest managed on a sustainable basis both within formal reserves and within multiple-use forests across public and private land.
State Coastal Policy 2006	Department of Environment, Parks, Heritage and the Arts	Ensures there is an effective framework in place for the management and sustainable development of Tasmania's coast.
State Water Quality Management Policy 1997	Department of Environment, Parks, Heritage and the Arts	Provides for the sustainable management of Tasmania's surface water and groundwater resources by protecting or enhancing their qualities while allowing for sustainable development in accordance with the objectives of Tasmania's Resource Management and Planning System.

Commonwealth legislation and policies:

<b>Main legislation</b>	<b>Agency</b>	<b>Purpose</b>
Environmental Protection and Biodiversity Conservation Act 1999	Australian Government Department of the Environment, Water, Heritage and the Arts	It provides a framework to protect and manage nationally and internationally important flora, fauna, ecological communities and heritage places.
Tasmanian Regional Forest Agreement 1997	Commonwealth and Tasmanian Governments	It is a 20 year plan for the conservation and sustainable management of Australia's native forests. The agreement provides certainty for forest-based industries, forest-dependent communities and conservation.
Tasmanian Community Forest Agreement 2005	Commonwealth and Tasmanian Governments	This is a supplement to the Tasmanian Regional Forest Agreement. The supplementary agreement was developed to implement the commitments arising from the 2005 Tasmanian Community Forest Agreement, to enhance the protection of Tasmania's forest environment and growth in the Tasmanian forest industry.
National Forest Policy Statement 1992	Commonwealth, State and Territory Governments	This is the blue print for the future of public and private forests. It outlines agreed objectives and policies for the future of Australia's public and private forests.
National Strategy for the Conservation of Australia's Biological Diversity 1996	Australian Government Department of the Environment, Water, Heritage and the Arts	It deals at a global level with the full range of biological diversity conservation, its sustainable use and the fair and equitable sharing of benefits arising from this use.

This list covers the most relevant commonwealth and state legislation and policies that apply to state forest management or activities in state forests. Other state legislation can indirectly apply to state forests, and is not specifically addressed in the Plan. Other legislation and policies of relevance are referred to as necessary throughout the Plan.

Any reference in the Plan to an agency, Act, Regulation, state policy or other statutory document is intended to refer to any subsequent renaming, revision or replacement of that agency, Act, Regulation, policy or document.

Nothing in the Plan will affect the exercising of a statutory power by a government department, state authority or a person beyond Forestry Tasmania. The Plan supports the RFA, TCFA and the investments made by the Australian and Tasmanian Governments to support the implementation of these agreements.

## APPENDIX 12

### Major research priorities for Forestry Tasmania

- Warra LTER Program
- Alternatives to clearfelling in oldgrowth forests (variable retention)
- Plantation nutrition and management
- Control of mammal browsing (chemical free)
- Forest hydrology and tree water use
- Increasing productivity through intensive management (pruning, thinning, fertilising, tree breeding)
- Development and use of more environmentally friendly pesticides
- Threatened species management
- Management of key habitat resources (coarse woody debris, hollows)
- Conservation biology
- Blackwood silviculture
- Forest health surveillance

## APPENDIX 13

### Management measures introduced by Forestry Tasmania in the past 10 years

Year	Management Measure
1997	Ceased use of Simazine (previously ceased use of Atrazine in 1995).
1997	Silviculture for solid wood products from hardwood plantations.
2000	Breeding program for <i>E. globulus</i> .
2001	Certification of Environmental Management System to ISO 14001.
2001	Annual sustainable forest management reporting.
2001	Major tourism development, Tahune Airwalk.
2002	Major tourism development, Scottsdale Ecocentre.
2003	Certification to Australian Forestry Standard (AS4708).
2003	Establishment of giant tree criteria, which resulted in protection, measurement and monitoring of giant trees.
2004	Major tourism development, Dismal Swamp.
2005	Ceased use of 1080 for browsing mammal control.
2005	Introduction of variable retention as an alternative to clearfelling in oldgrowth forests.
2005	Significant increase in oldgrowth reserves in state forests.
2005	Wood processing sites at Huon and Murchison.
2006	Introduction of rotary peeling plants.
2007	Ceased conversion of native forests to plantations.

**APPENDIX 14**  
**Annual Reporting**

Forestry Tasmania will report on the following aspects in the annual Sustainable Forest Management Report:

- Native forest and plantation harvesting
- Native forest and plantation establishment
- Native forest regeneration success
- Plantation silviculture
- Forest Estate summary
- Contribution to the CAR reserve system
- Wood production (including special species)
- Value of forest production
- Oldgrowth management
- Forest health and integrated pest management
- Browsing control
- Chemical use
- Water quality sampling
- Air quality monitoring
- Wildfire damage
- Forest Practices Authority audits
- Environmental breaches
- Visitor numbers
- Honey production and hive numbers
- Threatened species management
- Aboriginal and cultural heritage management
- Research highlights
- Safety performance
- Community liaison and sponsorship