

CENTRAL HIGHLANDS
REGIONAL FOREST AGREEMENT
DIRECTIONS REPORT

September 1997

Prepared by officials to support the Central Highlands Regional Forest Agreement process.

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FOREWORD

This report has been prepared by the RFA Steering Committee to assist stakeholders and the broader community to have input to the development of a Regional Forest Agreement (RFA) for the Central Highlands. The role of the Steering Committee is to manage the development and finalisation of the RFAs in Victoria and to ensure that the processes associated with the development of RFAs are consistent with the Scoping Agreement signed in 1996.

This report builds upon information contained in the Comprehensive Regional Assessment (CRA) report released in July 1997, and the results of community consultation following the release of the CRA report.

It addresses:

- how the proposed Comprehensive, Adequate and Representative (CAR) Reserve System satisfies the national forest reserve criteria (JANIS 1997);
- the elements of ecologically sustainable forest management (ESFM) which are integral to the development of a RFA;
- industry opportunities the implications associated with these opportunities; and
- the links between the RFA process and other statutory processes, particularly those related to environmental impact legislation, World Heritage, National Estate, endangered species protection and Native Title issues.

The RFA will operate for a period of twenty years, and will be signed by the Prime Minister of Australia and the Premier of Victoria. It will define the commitments made by both governments to forest conservation, forest use and development, and the development of those industries based on the resources of the region's forests. The RFA will be subject to review every five years to evaluate the performance of the agreement against the identified commitments.

Release of this report marks the beginning of an eight week period of public consultation leading up to the completion of the RFA. To assist with this consultation, a series of public meetings involving the community and stakeholders will be held in the Central Highlands and Melbourne to discuss this report and any issues which need to be considered in finalising the RFA.

Written submissions are invited and they may include:

- views on the approach which should be adopted within the RFA and any implications of that approach;
- any issues of substance that have not been considered; and
- other issues associated with the information presented.

Submissions will be taken into account in preparing the RFA and they should be addressed to:

Commonwealth and Victorian RFA Steering Committee
c/o Commonwealth Forests Taskforce
Department of Prime Minister and Cabinet
3-5 National Circuit, Barton, ACT, 2600.

Closing date for submissions will be Friday 21 November 1997.

Tom Aldred (Commonwealth Project Manager - 06 271 5082) and Ian Miles (Victorian Project Manager - 03 9637 8405) are available to discuss any issue relating to this report or the RFA process in general.

1. BACKGROUND

1.1 INTRODUCTION

This report outlines the Victorian RFA Steering Committee's preferred position with respect to the Regional Forest Agreement for the Central Highlands. It has been prepared on the basis of the Comprehensive Regional Assessment (CRA) report for the region and following consideration of issues raised by stakeholders in public meetings, individual and group briefings and in written comment.

The preferred position has been developed to address the three objectives of the RFA as follows:

- the development of a Comprehensive, Adequate and Representative (CAR) reserve system;
- ecologically sustainable forest management (ESFM) across the whole of the forest estate; and
- development of an efficient, internationally competitive timber industry and certainty for communities.

The Steering Committee believes that the proposals outlined in this report provide outcomes that, together, meet all of these objectives. The social and economic needs of communities have been addressed in the development of the proposals. The proposed CAR Reserve System, ESFM and industry development proposals combine to form the Steering Committee's preferred position.

Chapter 1 of this report provides a background to the RFA process, while Chapter 2 provides the relationship of the RFA to other key processes at the national and State levels. Chapter 3 outlines the elements of the proposed CAR Reserve System based on nationally agreed criteria. Chapter 4 examines opportunities for industry development in the region. Chapter 5 addresses the results of the statewide assessment of ESFM.

The Steering Committee invites public comment on the preferred position.

1.2 THE REGION

The Central Highlands Regional Forest Agreement (RFA) Region lies immediately to the north and east of the Melbourne metropolitan area and extends to Seymour and Lake Eildon in the north, the Hume Freeway in the west and Baw Baw National Park and Moe in the east. Townships within the region include: Lilydale, Toolangi, Healesville, Marysville, Alexandra, Eildon, Kinglake, Whittlesea, Woods Point, Warburton, Powelltown, Noojee, Erica/Rawson, Neerim South and Warragul.

The Central Highlands RFA Region covers approximately 1.1 million ha. Private land comprises some 502 800 ha, or 44 per cent of the region, and is mostly cleared and used for a range of agricultural pursuits.

Public land comprises about 600 000 ha, or 56 per cent of the area. The public land is covered mostly by native forest. The region is renowned for its scenery, diverse range of flora and fauna, timber resources, recreational opportunities and the high quality of water in its rivers and streams.

State forest occupies about 389 800 ha or 62 per cent of the public land, and conservation reserves (including National Parks and Flora and Fauna Reserves) occupy 29 per cent of the public land, or about 179 700 ha. The remaining public land in the Central Highlands includes other reserves, other public land and water bodies. A significant proportion of this other public land is managed by the Melbourne Water Corporation.

1.3 THE RFA PROCESS

Background

The National Forest Policy Statement (Commonwealth of Australia 1992) identified a single Comprehensive Regional Assessment (CRA) process whereby the States can invite the Commonwealth to participate in undertaking all assessments necessary to meet Commonwealth and State obligations for forested areas of a region. These assessments will provide the basis for enabling the Commonwealth and the States to reach a single Agreement relating to their obligations for forests in a region.

During 1995, the Commonwealth and the States of Victoria, Tasmania, New South Wales and Western Australia undertook a process of identifying Interim (or Deferred) Forest Areas in order to provide interim protection for forests that may be required for a CAR Reserve System while RFAs are being completed.

An Interim Forest Agreement (IFA) between the Commonwealth and Victoria was signed in January 1996. At the same time, the Prime Minister and Premier also signed a Scoping Agreement setting out administrative and operational arrangements for undertaking CRAs and developing RFAs, as well as committing Governments to establishing processes and timetables for the completion of the RFA process.

Victorian RFA Regions

Victoria has a land area of 22.7 million ha, of which some 40 per cent is publicly owned. Of the public land, 42 per cent (3.8 million ha) is reserved for conservation purposes, including 2.5 million ha of forests. A further 3.5 million ha of public land is also forested, of which about 1.2 million ha is available for timber harvesting.

Victoria has five RFA regions:

- East Gippsland,
- Central Highlands,
- Gippsland,
- North East, and
- West.

The RFA for the East Gippsland region was signed by the Prime Minister and the Premier of Victoria on 3 February 1997. The Central Highlands is the second region in Victoria for which an RFA is to be completed.

Stages in the RFA process

The major stages in the RFA process are outlined below.

Comprehensive Regional Assessment (CRA)

The National Forest Policy Statement establishes the CRAs as part of the process leading to the development of a Regional Forest Agreement. The CRA provides a synthesis of the

information on which the RFA can be developed and agreed between the Victorian and Commonwealth Governments. It does not make judgements or interpretations of information where that might pre-empt the development of the RFA.

The Central Highlands Comprehensive Regional Assessment report (VicRFASC 1997a) was published in July 1997. The CRA report brings together a wide range of studies conducted in recent years. This report is supported by a number of technical reports which provide further detailed information.

The technical reports are:

- Comprehensive Regional Assessment: Victorian Statewide Assessment of Ecologically Sustainable Forest Management (VicRFASC 1997b)
- Compendium of Victorian Forest Research, Research in Progress, Published and Unpublished Works with Particular Reference to the Central Highlands Regional Forest Agreement Region (VicRFASC 1997c)
- Central Highlands Comprehensive Regional Assessment: Mineral Assessment (VicRFASC 1997d)
- Central Highlands Comprehensive Regional Assessment: Social Assessment (VicRFASC 1997e)
- Central Highlands Comprehensive Regional Assessment: Biodiversity Assessment (VicRFASC 1997f)
- Comprehensive Regional Assessment: Wilderness Assessment of the Eastern Victorian forests (VicRFASC 1996b)
- National Estate Values in the Central Highlands of Victoria (AHC and CNR 1994)

The CRA report provides extensive information on the Central Highlands region and background information forming the basis of the reserve, industry and ESFM approaches described in this report. Copies of the CRA report are available at the Alexandra, Benalla, Woori Yallock, Traralgon and Melbourne offices of the Victorian Department of Natural Resources and Environment. The CRA report and technical reports may be ordered by calling 03 9637 8080.

RFA directions paper

The CRA assessment report provides the base information to be used in the integration phase of the RFA process. Information from the assessments and public consultation was used to identify and analyse issues which will be addressed in the RFA. This analysis included consideration of ecological, economic and social issues. A description of these issues and the results of the analysis is provided in this report. This Directions Report is released for an eight week public comment period. This phase is an important component of the consultation process in developing an RFA for the Central Highlands. This Report is designed to provide a basis for detailed discussion with stakeholders.

Further opportunities for consultation with the community and stakeholder groups will be provided through this period of public comment (see below).

RFA Finalisation

Following the eight week public comment period on this report, the Commonwealth and State Governments will consider the comments made in submissions and other discussions with stakeholders and then negotiate the Regional Forest Agreement. The RFA is scheduled for completion in late 1997. The Forest Management Plan will be finalised after the RFA.

1.4 CONSULTATION PROCESSES

Previous Victorian land use planning processes in the Central Highlands have provided extensive opportunities for community involvement in forest issues over the last twenty years (notably Land Conservation Council studies and forest management planning). The RFA process has built on this involvement through a wide range of consultation activities with the local community and other interest groups in the last few months.

Public meetings were held in Healesville, Alexandra and Warragul in October 1996 to explain the RFA process and discuss with stakeholders the ways in which they could be involved in the process. Subsequently a background paper outlining the process and the involvement of stakeholders was published and sent to all stakeholder groups.

Development of the Social Assessment Report provided further opportunities for involving the community, particularly through workshops in Alexandra, Kinglake, Marysville, Healesville, Erica/Rawson and Noojee and adjoining districts. In addition, other opportunities for community input included an extensive telephone survey of the region, survey questionnaires, focus groups, interviews with key stakeholders at a State, regional and local level and through direct contact with the Victorian Forest Community Coordinator in Victoria.

Following release of the CRA reports, public meetings with stakeholders and community representatives were held in three locations in Central Highlands (Healesville, Alexandra and Warragul) and several meetings were also held with groups in Melbourne. These meetings provided an update of the RFA process, an overview of the CRA reports and sought to identify community views on the issues that should be addressed in the development of the RFA. A second series of meetings in the same locations was conducted prior to the development of this report.

Further consultation will occur over the next eight weeks prior to finalisation of the RFA. A series of public meetings will be held in the region and will be advertised in the regional media. Mr Tom Aldred (02 6271 5082) and Mr Ian Miles (03 9637 8405) may be contacted for further information on the Central Highlands RFA process.

1.5 ISSUES RAISED DURING CONSULTATION

Social issues raised during the CRA development were presented in the Social Assessment Report. A supplementary social assessment report is currently in preparation and will provide additional information obtained in subsequent surveys conducted in the region since the CRA report was published.

Issues raised in the meetings held prior to release of this report are summarised in Appendix A. A number of specific proposals raised by stakeholders have been addressed in the relevant chapters of this report. These issues can be broadly classified into those related to the comprehensive, adequate and representative reserve system, ecologically sustainable forest management, certainty and development for forest industries, and other issues.

Many of the issues identified are related to the development of the RFA as they have a strong relationship to the employment base of local and regional communities. However, a number of the issues raised are not directly related to the RFA process although they are important in a broader regional context. While these issues are not part of the RFA, a list of relevant Commonwealth and Victorian government programs is provided in Appendix C.

2. RELATIONSHIP OF THE REGIONAL FOREST AGREEMENT TO OTHER PROCESSES

One of the objectives of the RFA process is to meet statutory and policy requirements through the development of a Regional Forest Agreement. The satisfactory completion of these requirements should provide for greater certainty of government decision-making in relation to forests during the period the RFA is in place.

Commonwealth statutory requirements exist in relation to the general protection of the environment against impacts, the protection of world heritage and national estate values and the protection of endangered species. The relevant Commonwealth Acts of Parliament are the:

- *Environment Protection (Impact of Proposals) Act 1974*
- *Australian Heritage Commission Act 1975*
- *Endangered Species Protection Act 1992*
- *World Heritage Properties Conservation Act 1983*

The RFA process is designed to satisfy the requirements of these Acts. Obligations under the *Environment Protection (Impact of Proposals) Act 1974* and the *Australian Heritage Commission Act 1975* require discrete assessment processes against defined criteria. These assessment processes are being conducted in parallel with the RFA process and will be based on the contents of this report and the previously published assessment reports.

The Commonwealth also has obligations under the *Native Title Act 1993* relating to the protection of native title rights and interests. The RFA is not intended to influence in any way native title claims that may arise. Where any government action to implement an RFA could affect native title, the action will be taken in accordance with the *Native Title Act 1993*.

Victorian statutory requirements have been satisfied by a number of Victorian legislative and administrative processes, including the proposed Central Highlands Forest Management Plan, and the application of various Codes of Practice and the *Land Conservation Act 1970*, the *Forests Act 1958* and the *Flora and Fauna Guarantee Act 1988*.

2.1 OBLIGATIONS UNDER ENVIRONMENT IMPACT ASSESSMENT LEGISLATION

The objective of the *Environment Protection (Impact of Proposals) Act 1974* is to ensure, to the greatest extent that is practicable, that matters affecting the environment to a significant extent are fully examined and taken into account in arriving at Commonwealth Government decisions.

The Commonwealth Government's proposal to enter into a Central Highlands Regional Forest Agreement with Victoria was referred to the Commonwealth Minister for the Environment, in accordance with the administrative procedures of the *Environment Protection (Impact of Proposals) Act 1974*. These procedures require the Minister to determine whether preparation and public review of an environmental impact statement or a public environment report are required to satisfy the object of the Act. The Minister is required to provide this advice before the Central Highlands Regional Forest Agreement is finalised. The public

consultation process for the Central Highlands Regional Forest Agreement has been designed to be consistent with the requirements of the Act.

2.2 NATIONAL ESTATE OBLIGATIONS

The Australian Heritage Commission's (AHC) responsibilities, as defined by the *Australian Heritage Commission Act 1975*, include:

- the identification of places with national estate values and the compilation of an inventory of these places (the Register of the National Estate);
- the promotion of the conservation of these values and places; and
- the provision of advice to Commonwealth Ministers on the effect on the National Estate of proposed actions.

The identification of national estate places in Central Highlands is described in the National Estate report (AHC & CNR 1994). Interim and final listing will take place in accordance with commitments in the RFA, once completed.

The conservation of national estate values in Central Highlands will be achieved through both the representation of national estate places within the comprehensive, adequate and representative reserve system and the incorporation in the RFA of protection principles for national estate values in other forest areas.

Prior to the signature of the RFA, the AHC will provide advice to the Commonwealth Government on the extent to which the RFA may have an effect on the National Estate. This advice will be provided in a regional context having regard to the levels of protection afforded to national estate values through a range of mechanisms.

2.3 OBLIGATIONS FOR ENDANGERED SPECIES PROTECTION

The *Endangered Species Protection Act 1992* (ESP Act) provides the basis for Commonwealth responsibilities for the conservation of endangered and vulnerable species and endangered ecological communities, and for the amelioration of the processes that threaten them. The ESP Act requires that any effect on scheduled species and communities is taken into account in Commonwealth decisions, such as a decision to enter into a Regional Forest Agreement. Forest species listed in the Act have been a high priority for assessment in the CRA.

Obligations under the legislation include:

- the identification of the occurrence of endangered and vulnerable species and communities and the assessment of their conservation status under present tenures and management practices;
- the preparation of recovery plans and threat abatement plans for identified endangered forest species and threatening processes;
- the development of appropriate prescriptions and other planning mechanisms;
- the identification and assessment of impacts of present and proposed resource uses; and
- the identification and assessment of impacts of key threatening processes with respect to present and proposed resource use.

Identification and assessment activities undertaken to fulfil these obligations are described in the Biodiversity assessment report (VicRFASC 1997f).

Priorities for the preparation of recovery plans and action statements for endangered flora and fauna species will be included in the RFA.

2.4 WORLD HERITAGE ISSUES

As a State Party to the World Heritage Convention the Commonwealth Government has a responsibility for the identification, protection, conservation, presentation and transmission to future generations of the cultural and natural World Heritage situated on its territory.

As part of the development of the East Gippsland RFA, an independent panel of experts undertook a systematic assessment of themes of outstanding universal value that were relevant to Australia and then, of those, which might be best represented in Victoria. Two of the themes of outstanding universal value identified by the Panel are potentially relevant to the Central Highlands, namely:

- ‘Origin and development of biota and landforms as a result of Gondwana plate tectonics and more recent stability and long term isolation (sub-theme passive continental margins)’; and
- ‘Evolution of landforms, species and ecosystems under conditions of stress (sub-theme *Eucalyptus*-dominated vegetation)’.

The panel identified several sub-themes of outstanding universal value related to these themes: the sub-theme ‘parts of the Australian marginal swells associated with the Eastern Highlands’ and the sub-theme of ‘*Eucalyptus*-dominated vegetation’. This sub-theme was specifically identified as directly relevant to the eastern forest areas of Victoria, which include East Gippsland and the Central Highlands, as well as other parts of Australia. The panel considered that places representing this theme would include a wide variety of *Eucalyptus* types from a variety of environments and that an excellent representative sample of these can be found in south-eastern Australia. The panel also stated that in the case of south-eastern Australia, any sample focussed on *Eucalyptus* is most likely to represent an outstanding example of the long-term processes of landform evolution associated with passive continental margins.

The panel also concluded that any such potential World Heritage nomination representing the sub-theme of *Eucalyptus*-dominated vegetation would comprise several large areas, most of which could be expected to already have protected area status.

Because the Central Highlands region may contribute to a potential World Heritage nomination based on the Australia-wide Eucalypt theme, it is envisaged that clauses similar to those in the East Gippsland RFA will be included in the Central Highlands RFA.

The East Gippsland RFA committed the two governments to actively investigate, and participate in, a World Heritage assessment of the Australia-wide Eucalypt theme, including any potential contribution from East Gippsland. The Agreement also noted that in order to progress work towards an Australia-wide Eucalypt nomination the agreement of all relevant governments would be required.

2.5 LAND USE PLANNING IN VICTORIA

The use of publicly owned land in Victoria has been determined by the Government on the basis of recommendations from the Land Conservation Council (LCC). The LCC was an independent statutory body which was established in 1971 under the *Land Conservation Act*

1970. In July 1997, after 27 years of operation, it was replaced by the Environment Conservation Council (ECC).

The Land Conservation Act established a comprehensive and systematic public land use planning process that operated successfully and provided valuable advice to the Victorian Government.

Since 1971 the LCC conducted more than 30 major land use studies covering the whole State, with most of Victoria having been investigated a number of times. Each study takes about 3 years to complete.

The LCC and its processes were based on three key principles: independence (from government and interest groups); expertise; and public consultation. The Council members all had technical expertise and brought to discussions the range of skills and experience necessary to provide recommendations on the use of public land in the context of balanced land use in Victoria.

In making its recommendations on public land the LCC considered all uses of land and the range of views expressed. It also had regard to the social and economic implications of any recommendations it made. The LCC completed a comprehensive review of public land use in the Central Highlands in mid-1994.

Public consultation during the LCC review process was a legislative requirement and was crucial to successful land use planning outcomes. This has been a key factor in the vast majority of LCC recommendations being accepted by successive governments, and general bipartisan support in the Parliament for legislation creating new national and other parks.

Based on advice from the LCC, the basis of forest management planning in Victorian is a determination by the government of those areas to be included in the conservation reserve system and those areas to be State forest. The Department of Natural Resources and Environment then prepares Forest Management Plans for State forest which take into account management for conservation, timber and other uses of natural resources such as recreation and water supply.

Forest management planning in Victoria is based on 15 Forest Management Areas (FMAs). Forest Management Plans address the full range of forest values and apply for ten years but may be reviewed when required, such as in the event of a major fire. They aim to ensure the complementary management of State forest and the conservation reserve system. The key aim of forest management is to ensure that State forest is used in an environmentally sensitive, sustainable and economically viable manner. Forest management planning is a continuing process and designed to be responsive to changing community expectations and expanding knowledge of the forest ecosystem.

Features of Victoria's forest planning are:

- public involvement and consultation in plan development and approval;
- the application of comprehensive data sets and information technology to assess planning options;
- a focus on integrating information from a range of scientific disciplines; and
- the adaptive nature of the resultant plans so that new information, and circumstances, can be accommodated without the plans losing their integrity or authority.

The planning process requires preparation of a draft plan for a two month period of public consultation prior to finalisation. An advisory committee representing the range of community interests in the forests of each FMA are closely involved throughout the planning process.

The proposed Central Highlands Forest Management Plan was released for public comment in January 1997. As well as meeting the objectives of the Victorian forest planning processes, the proposed Forest Management Plan was also developed in the context of meeting the draft national reserve criteria, with similar targets for protection of EVCs and old growth. As such, the proposed Plan provided a substantial basis for undertaking analyses against the National Reserve Criteria. The final plan will be published after the Central Highlands Regional Forest Agreement is finalised, in order to be able to reflect the outcomes of the RFA.

3. COMPREHENSIVE, ADEQUATE AND REPRESENTATIVE RESERVE SYSTEM

3.1 THE CENTRAL HIGHLANDS CONSERVATION RESERVE SYSTEM

In 1970, the conservation reserve system in the Central Highlands region consisted of several small national parks, including Ferntree Gully, Fraser and Kinglake National Parks and a number of smaller reserves such as the Yellingbo State Nature Reserve which was established to protect the endangered Helmeted Honeyeater.

Following the establishment of the Victorian Land Conservation Council (LCC) in 1970, major land use reviews were undertaken in the Central Highlands in the mid-1970's and the early 1990's. As a result of these reviews which extended over several years and included extensive opportunities for public comment, major additions were made to the conservation reserve system. Between 1970 and 1995, the conservation reserve system in the Central Highlands has been expanded significantly and now comprises more than 180,000 ha or 30 per cent of all public land in the region. The most significant national and State parks are Yarra Ranges, Baw Baw, Lake Eildon, Dandenong Ranges, Kinglake, Bunyip, Moondarra and Cathedral Range. These parks are complemented by numerous flora and fauna reserves distributed across the region which provide protection for a variety of significant biodiversity values. A network of Reference Areas has also been established containing representative examples of the major land types occurring in the region. In making its recommendations, the LCC deferred resolution of some issues, such as the protection of Leadbeater's Possum in State Forest, to the Forest Management Planning process.

During 1995 the Commonwealth and Victorian governments undertook a process of identifying Interim (or Deferred) Forest Areas in order to provide interim protection for forests that may be required for a CAR Reserve System while RFAs are being completed. The Interim Forest Agreement (IFA) between the Commonwealth and Victoria was signed in January 1996.

Following the 1994 LCC review and the development of the IFA in 1995, the Department of Natural Resources and Environment has undertaken a comprehensive planning process for the State forest areas in the Central Highlands. In addition to the 180,000 ha of the Central Highlands included in the dedicated reserve system, the Forest Management Plan proposes to set aside substantial areas of forest in the Special Protection Zone (SPZ) to protect significant biodiversity values in the region. The Plan contains a range of strategies to conserve endangered flora and fauna, including Leadbeater's Possum, large forest owls, Tiger Quoll and Spotted Tree Frog, Tall Astelia and other rare plants. The Plan also includes specific guidelines for the protection of all vegetation types (Ecological Vegetation Classes or EVCs) and old growth in the region, depending on their rarity. The proposed Plan has been developed taking into account the nationally agreed forest conservation reserve criteria.

Given this background, and the process adopted to develop the proposed Forest Management Plan, the RFA Steering Committee used the proposed Forest Management Plan as the basis for conducting analyses against the Reserve Criteria when developing the Comprehensive Regional Assessment (CRA).

The CRA report for the Central Highlands area identified the extent to which the reserve system (comprising both the dedicated reserves and the forest included in the Special Protection Zone) meets the National Reserve Criteria.

3.2 THE NATIONAL RESERVE CRITERIA

A comprehensive, adequate and representative (CAR) reserve system based on the nationally agreed reserve criteria (JANIS 1997) will form a central feature of the Regional Forest Agreement. The nationally agreed criteria cover biodiversity, old growth and wilderness as well as discussion on reserve design and application of the criteria. These criteria are outlined in the relevant sections below, and further information on the criteria is in Appendix B.

Central to the national reserve criteria is consideration of the conservation status of reserve or management tenures. The national reserve criteria refer to:

- Dedicated reserves - security of tenure such that a parliamentary decision is required to revoke the current status is the primary consideration of this category. In the Central Highlands context these equate with National Parks, State Parks and Flora and Fauna Reserves for example.
- Informal Reserves - areas reserved under other secure tenure or management arrangements. In the Central Highlands context these equate to the larger areas of State forest Special Protection Zones (SPZ) where areas have been set aside for specific and identified conservation purposes.
- Protection through prescription - for situations where protection of the conservation value within reserves is impracticable as a result of the nature of the value. In the Central Highlands situation this relates to protection afforded by the Code of Forest Practices for Timber Production.

Provision is also made in the criteria for inclusion of private land in the CAR Reserve System, with the agreement of landholders, where the criteria cannot be met from public land.

3.3 THE PROPOSED CAR RESERVE SYSTEM

Based on the results of the CRA report, community input through three rounds of public meetings and written comments from stakeholders, the Steering Committee developed a proposed CAR Reserve System as part of the preferred position for the Central Highlands RFA. The proposed CAR Reserve System is shown on Map 1.

Adoption of the preferred position would add approximately 115,000 ha to the existing reserve system of 180,000 ha evaluated as part of the Deferred (Interim) Forest Assessment and bring the total area of the proposed CAR Reserve System in the region to approximately 295,000 hectares (about half of the public land in the region or 27 per cent of the entire region). The final tenure of these additional areas has not yet been determined. However, for the purposes of the analyses undertaken for this report, the additions have been considered as part of the Special Protection Zone in State forest. A consideration in determining the final tenure of reserve additions will be the representation in dedicated reserves of particular EVCs and old growth types. Decisions on tenure will be made during final negotiations on the RFA, following community input.

Areas of public land, principally managed by Melbourne Water Corporation, which are not currently included in the proposed CAR Reserve System, also have the potential to contribute significantly to the protection of particular EVCs, provided that suitable management arrangements can be established.

The proposed CAR Reserve System has been analysed against the reserve criteria and the results are discussed in detail below. The results show that the proposed CAR Reserve System derived from public land contains most of the conservation values and features required in a CAR Reserve System, and the protection level established by the system is significantly greater than the minimum required for many values. A number of EVCs do not exist on public land at levels that meet the reserve criteria and, in many cases, considerably less than 15 per cent of the pre-1750 distribution remains, largely because these EVCs occurred on what is now cleared private land. As a result, the EVCs are classified as endangered, vulnerable or rare and are addressed separately in the discussion that follows.

Based on the CRA assessments and subsequent analysis, the Steering Committee considers that the proposed CAR Reserve System and the range of mechanisms in place to protect threatened species and communities, satisfies the national reserve criteria with respect to the Central Highlands region.

The following sections provide a description of the key issues considered in developing the proposed CAR Reserve System and a detailed analysis against the national reserve criteria.

Criteria for Biodiversity

The national reserve criteria for biodiversity are being addressed through consideration of the protection afforded to individual EVCs as well as individual species of flora and fauna. Particular attention is given to endangered, vulnerable or rare species or EVCs.

Representative Conservation of Ecological Vegetation Classes

The national reserve criteria for biodiversity specify that as a general criterion, 15 per cent of the pre-1750 distribution of each forest ecosystem should be protected in the CAR Reserve System with flexibility considerations applied according to regional circumstances, and recognising that as far as possible and practicable, the proportion of dedicated reserves should be maximised. Where forest ecosystems are endangered, vulnerable or rare the criteria require increased levels of protection, as discussed in further detail in the following section.

For the purposes of this assessment, Ecological Vegetation Classes (EVCs) are regarded as forest ecosystems. There are 40 EVCs identified in the Central Highlands, of which 21 are considered endangered, vulnerable or rare.

For the 19 EVCs not considered endangered, vulnerable or rare, Table 3.1 shows that all but one have the majority of the remaining occurrence on public lands. For these 18, their representation in the proposed CAR Reserve System (made up of conservation reserves and SPZ in State forest) exceeds the criterion of 15 per cent of their pre-1750 distribution, with most having more than 15% in the dedicated reserve system. Herb Rich Foothill Forest, Montane Damp Forest and Montane Dry Woodland have less than 15 per cent of their pre-1750 extent in the dedicated reserve system, although additional areas are protected in the proposed State forest SPZ so that total reservation of each of these EVCs is in excess of 15 per cent in the proposed CAR Reserve System.

For one of these nineteen EVCs, Box Ironbark Forest, the majority of its current distribution occurs on private land while 1.5 per cent is within conservation reserves. A further 10 per cent of the pre-1750 extent is located on land managed by Parks Victoria in the Plenty Gorge

and on land surrounding Sugarloaf Reservoir, managed by Melbourne Water Corporation.
The

Table 3.1: Representative conservation (percentage reservation status) of EVCs

Ecological Vegetation Class	Area (ha)		Percent remaining	Status	Percent of EVC			
					Cons Reserve	State Forest		
						a	SPZ (iv)	
	Pre 1750	Current						
Clay Heathland	27	27	99.2	R		19.8		
Lowland Forest	78,992	42,805	54.2		13.7	1.6	0.6	
Riparian Scrub Complex	9,992	2,695	27.0	V	1.1			
Riparian Forest	43,059	31,801	73.9		15.6	7.6	11.7	0.3
Heathy Dry Forest	15,025	14,435	96.1		26.6	35.7	1.2	0.2
Grassy Dry Forest	73,892	41,579	56.3		18.7	4.0	0.3	0.1
Herb-rich Foothill Forest	168,346	123,049	73.1		11.4	9.5	0.9	0.2
Rocky Outcrop Scrub	311	227	73.1	R	62.9			
Rocky Outcrop Shrubland	19	5	28.0	V R	0.2			
Damp Forest	198,726	162,307	81.7		16.7	7.0	1.3	0.2
Wet Forest	123,752	120,068	97.0		29.0	8.3	2.4	0.2
Cool Temperate Rainforest (ii)	12,984	12,970	99.9	R	44.0	27.4	3.2	0.9
Montane Dry Woodland	7,087	7,050	99.5		3.2	46.3	0.9	0.5
Montane Damp Forest	20,506	20,150	98.3		7.7	14.5	0.5	0.5
Montane Wet Forest	50,319	49,678	98.7		33.6	8.0	0.9	0.2
Montane Riparian Thicket	3,056	3,056	100.0		33.3	8.4	7.7	1.6
Sub Alpine Woodland	7,262	7,259	100.0		78.9	4.9	0.3	0.2
Treeless Sub Alpine Complex	1,855	1,825	98.4		84.9	5.9	1.1	0.1
Shrubby Foothill Forest	50,296	35,482	70.5		22.4	2.5	0.5	0.1
Valley Grassy Forest	64,452	7,201	11.2	E V	1.4			
Heathy Woodland	17,876	6,684	37.4		21.4	1.6		
Wet/Swamp Heathland	6,250	3,779	60.5		47.1			
Swamp Scrub	5,655	429	7.6	E				
Box Woodland	25,339	328	1.3	E	0.2			
Plains Grassy Woodland	44,721	1,475	3.3	E	0.2			
Floodplain Riparian Woodland	18,016	2,431	13.5	E V R	6.2			
Riparian Thicket	1,726	1,006	58.3		4.1	28.9		
Box Ironbark Forest	1,449	711	49.1		1.5			
Granitic Hills Woodland	1,258	215	17.1	E V				
Riverine Escarpment Scrub	765	241	31.5	V R				
Swampy Riparian Woodland	2,530	964	38.1		16.4			
Grassland	7,982	15	0.2	E				
Gray Clay Drainage Line Complex (iii)	560	0	0.0	E				
Plains Grassy Wetland	354	4	1.2	E R				
Swampy Riparian Complex	50,889	5,945	11.7	E V	0.6			
Valley Heathy Forest	4,155	347	8.4	E				
Grassy Forest	10,059	2,682	26.7	E V	1.5			
Swamp Formation	12	1	10.7	V				
Damp Sands Herb-rich Woodland	162	46	28.4	E V				
Riverine Forest	210	4	1.9	E				
Rock		23						
Cleared Land	23	405,145	98.4		37.2			
Water Bodies	4	13,808						
Total	1,129,953	1,129,953						

i) The percentages of each EVC shown in the various land tenures comprise proportions of their pre-1750 extent by each EVC is included in the category "Cleared Land" under "Current Extent".

ii) All Cool Temperate Rainforest and an adjoining buffer of non-rainforest vegetation is protected in the Special

iii) The remaining occurrence of this EVC is too small to map and is not reflected in this table, remnants are kn

management objectives for this land are consistent with the protection of the EVCs and as such, could make a significant contribution to the proposed CAR Reserve System.

Representative Conservation of Endangered, Vulnerable and Rare Ecological Vegetation Classes

The national reserve criteria require that all remaining occurrences of rare and endangered forest ecosystems should be reserved or protected by other means as far as is practicable, and that at least 60 per cent of their remaining extent of vulnerable forest ecosystems should be reserved or protected.

Twenty one EVCs in the Central Highlands region have been identified as endangered, vulnerable or rare. As shown in Table 3.1, for each of these EVCs (excluding Cool Temperate Rainforest and Rocky Outcrop Scrub) the majority of their occurrence is on Other Public Land or private land. Consequently their representation in the proposed CAR Reserve System on public land is limited. The entire occurrence of Clay Heathland, Rocky Outcrop Scrub and Rocky Outcrop Shrubland on public land is protected in the proposed CAR Reserve System.

All rainforest, and an associated non-rainforest buffer is excluded from timber harvesting in the Central Highlands. A substantial area of Cool Temperate Rainforest in the Central Highlands is in the dedicated reserve system (44 per cent) and the larger components of the SPZ (30.6 per cent SPZ(a&b)). The remaining stands are protected by the narrower components of the SPZ, including buffer zone mechanisms. The Code of Forest Practices for Timber Production specifies that for stands containing nationally significant rainforest, the highest degree of protection, generally sub-catchment level is appropriate, except where full protection can be provided by other measures which are outlined in approved plans. Consistent with the Code of Practices for Timber Production the rainforest protection strategy outlined in the Proposed Central Highlands Forest Management Plan (NRE 1996) is based on the application of buffers and/or subcatchment protection. The proposed CAR Reserve System provides high levels of protection for the key values associated with rainforest sites of national significance (including those in the headwaters of the Acheron River and in the Bunyip River) and state significance, as well as some of the regional significance. The Bunyip River site also provides sub-catchment protection for the occurrences of Tall *Astelia* associated with the rainforest stands in this locality.

Some concerns have been raised about the adequacy of 40 m buffers in protecting rainforest stands. In the Central Highlands, buffering arrangements are currently considered to provide adequate protection against physical disturbance from forest operations, which is a particularly important factor in minimising the spread of Myrtle Wilt. Annual audits of the implementation of the Code and related prescriptions on State forest indicate that the disturbance to buffers surrounding rainforest from forest operations is very low. Wider buffers are provided where higher priority rainforest stands are not already protected in the dedicated reserves or the larger components of the SPZ. Depending on the priority of the particular area within national or state sites of significance, 60 m or 100 m buffers are applied.

These endangered, vulnerable or rare EVCs on public land are predominantly within conservation reserves and/or areas managed by Melbourne Water Corporation, Plenty Gorge (managed by Parks Victoria) and water frontages and recreation areas managed by the Department of Natural Resources and Environment. The proportion of these EVCs in specific components of the Other Public Land category is shown in Table 3.2.

Table 3.2 Representative conservation of Endangered, Vulnerable and Rare Ecological Vegetation Classes

Endangered, Vulnerable and Rare Ecological Vegetation Classes (EVC)	Area (ha)		Percent remaining	Total percent remaining on Other Public Land	Percent of EVC (pre-1750 extent) in Other Public Land areas ²						
	Pre 1750	Current			Cardinia	Sugarloaf	Beaconsfield	Toorourong	O'Shannassy aqueduct	Yan Yean	Plenty Gorge
	Clay Heathland	27			27	99.2					
Riparian Scrub Complex	9,992	2,695	27.0	1.8	0.5		0.1			0.01	
Rocky Outcrop Scrub	311	227	73.1								
Rocky Outcrop Scrubland	19	5	28.0								
Cool Temperate Rainforest	12,984	12,970	99.9	0.2				0.1			
Valley Grassy Forest	64,452	7,201	11.2	1.0		0.05		0.02	0.3	0.07	
Swamp Scrub	5,655	429	7.6	6.2					0.1		
Box Woodland	25,339	328	1.3	0.1							
Plains Grassy Woodland	44,721	1,475	3.3	1.8					0.3	0.6	
Floodplain Riparian Woodland	18,016	2,431	13.5	6.1							
Granitic Hills Woodland	1,258	215	17.1	0.8							
Riverine Escarpment Scrub	765	241	31.5	24.9						21.2	
Grassland	7,982	15	0.2								
Gray Clay Drainage Line Complex ¹	560	0	0.0								
Plains Grassy Wetland	354	4	1.2	1.2						1.2	
Swampy Riparian Complex	50,889	5,945	11.7	1.7		0.02				0.1	
Valley Heathy Forest	4,155	347	8.4	0.6							
Grassy Forest	10,059	2,682	26.7	0.5			0.06				
Swamp Formation	12	1	10.7								
Damp Sands Herb-rich Woodland	162	46	28.4	19.7						19.5	
Riverine Forest	210	4	1.9	0.6							

¹ The remaining occurrence of this EVC is too small to map and is not reflected in this table, remnants are known from private land.

² These seven land areas include only those managed by Melbourne Water Corporation or Parks Victoria with rare, endangered or vulnerable EVCs.

Melbourne Water Corporation is committed to maintaining biodiversity values within areas such as Yan Yean catchment and the buffers associated with the Thomson Reservoir, subject to management requirements to protect and maintain water supply assets. Melbourne Water Corporation is being consulted regarding conservation of endangered, vulnerable or rare EVCs for other areas that it manages. Areas maintained for biodiversity by the Corporation could contribute significantly to the proposed CAR Reserve System, especially in relation to representation of endangered EVCs such as Valley Grassy Forest.

A review of all endangered, vulnerable or rare EVCs to establish priorities for protection of the EVCs is being undertaken. The review is considering the status and distribution of the EVCs in a regional and State context. It is intended that the prioritisation will be completed and incorporated in the RFA.

The national forest policy statement and national reserve criteria specify that the representative areas for the CAR Reserve System should be first established from public

land. Conservation of EVCs on private land can be encouraged through extension and support to landholders and through voluntary conservation covenants or agreements with landholders, as discussed in a later section.

Other Biodiversity Criteria

The National reserve criteria also require consideration of reserve design, geographic representation, and protection of high quality habitat for all known elements of biodiversity (including threatened species). These have been addressed in part through the LCC review and the development of the proposed Central Highlands Forest Management Plan. The Biodiversity and the National Estate Assessment Reports discuss these criteria in greater detail and they have been taken into account in developing the proposed CAR Reserve System described in this Section.

Representation of EVCs across the eleven Geographic Representation Units (GRUs) within the Central Highlands has been addressed in the development of the proposed CAR Reserve System. The reserve criteria also recognise that the viability of the reserve system is linked to ecologically sustainable forest management outside reserves and reserve design should take this into account. The proposed CAR Reserve System has been developed within this context.

Achieving adequate levels of reservation for EVCs, represented across the full geographic range of their natural occurrence in the region, is the primary mechanism for maintaining high quality habitat for the full suite of species and current levels of genetic diversity. Additional mechanisms are also applied to protect species, through specific strategies and prescriptions which may include the identification of quality habitat. (such as Leadbeater's 1B habitat and owl protection strategies).

Recovery Plans and/or Action Statements are examples of these additional mechanisms. They exist for a number of species and have formed the basis for most of the explicit species management guidelines in the proposed Forest Management Plan and Park Management Plans. The Code of Forest Practices for Timber Production, including riparian and rainforest prescriptions also provide additional protection for species occurring in these habitats. Guidelines and prescriptions from these documents will be implemented within the framework of the RFA and management plans. Priorities for preparation of Recovery Plans and Action Statements will be considered in finalising the RFA.

Following the flora and fauna assessments in the CRA report, a quantitative species reservation analysis was undertaken to examine the spatial distribution of species records against the proposed CAR Reserve System. This analysis used the priority species identified in the CRA report and built upon the information on the distribution, biological and life history characteristics of species, known threats and current managements actions provided in that report. Valid analysis was only possible where there is a sufficiently high number of records for the relevant species. The analysis essentially confirmed the results of the assessments within the CRA report.

The distribution of species records indicates that significant areas of high quality habitat for the fauna species are likely to occur in the proposed CAR Reserve System and for flora species, most were reasonably well reserved with significant numbers of known populations of priority plant species occurring within the proposed CAR Reserve System. Fauna species which are not well represented by known sites in the reserve system have been recorded largely on private land and there are nine rare or threatened flora species in the Central Highlands region that occur only on private land, primarily within grasslands. Mechanisms

for the protection of significant conservation values on private land are discussed later in this report.

The flora assessment indicates that the highest priority should be given to species whose populations are small or declining further, with receding or degrading habitat and with little evidence of recruitment. Included in this category are *Caladenia rosella*, *Carex tasmanica*, *Amphibromus pithogastris*, *Cullen tenax*, *Cyathea cunninghamii*, *Lepidium hyssopifolium* and *Senecio macrocarpus*.

Caladenia rosella, *Carex tasmanica*, *Cullen tenax* and *Amphibromus pithogastris* are recorded on private land, whereas *Cyathea cunninghamii* and *Senecio macrocarpus* are within areas managed by Melbourne Water Corporation. Action Statements or Recovery Plans have been prepared, or in preparation, for these species excluding an Action Statement for *Cullen tenax*, and a Recovery Plan for *Lepidium hyssopifolium* and *Senecio macrocarpus*. Other Flora and Fauna Guarantee Act listed species for which Action Statements have not been completed are *Caladenia concolor* and *Thismia rodwayi*. Recovery Plans have not been completed for *Eucalyptus crenulata* and *Senecio laticostatus* listed under the Endangered Species Protection Act.

Of the 32 priority fauna species in the Central Highlands listed under the Flora and Fauna Guarantee Act or Endangered Species Protection Act, the required Action Statements or Recovery Plans have been commenced or completed for all except eight species. These are Eastern Horseshoe-bat, Painted Honeyeater, Dwarf Galaxias, Macquarie Perch, Australian Grayling and three arthropods *Archeophylax canarus* (Caddisfly), *Riekoperla darlingtoni* (Mt Donna Buang Wingless Stonefly) and *Austrogammarus haasei* (Amphipod). A further 28 species on the Threatened Fauna of Victoria list were considered in the fauna assessment. Of these, only two (the Alpine Box Skink and Barking Owl), have been recommended for listing under the Flora and Fauna Guarantee Act.

Two species confined to the Central Highlands region, Leadbeater's Possum and Baw Baw Frog, are discussed further below.

Other values identified in the national reserve criteria such as centres of endemism, areas of species richness and refugia, have been identified through the National Estate assessment. Development of the proposed CAR Reserve System has also taken these values into account and maximised their representation wherever possible.

Leadbeater's Possum

Leadbeater's Possum is a small possum found only in the Central Highlands of Victoria. Previously thought to be extinct, it was rediscovered in 1961 and is considered nationally endangered. It is currently found mainly in mountain forests dominated by Mountain Ash, Alpine Ash and Shining Gum and has recently been recorded in Snow Gum woodland at Lake Mountain. A small population also exists in Yellingbo State Nature Reserve, in lowland swamp forest.

Wildfires in 1939 burnt approximately 84 per cent of the Central Highlands ash-eucalypt forests. A wattle understorey provides important feeding habit for Leadbeater's Possum and the fire-killed remnants of mature forest and resultant regrowth from the 1939 fires has provided abundant feeding and nesting habitat for the species during the past 30 years. However, as the fire-killed nest trees decay and fall, the extent of this type of habitat is diminishing.

Even if timber harvesting were excluded from the regrowth ash forests, they will not be capable of providing suitable nest sites for a further 150 years - assuming that Ash trees must be about 200 years old before they can provide suitable nest sites. It therefore follows that the existing older-aged forest must continue to provide habitat for at least another 150 years.

As discussed in the Central Highlands CRA report, a comprehensive strategy for the conservation of this species is provided through an approved Action Statement and a Recovery Plan which is almost complete. The objective of management as reflected in these documents, is to conserve the species over its known range.

Areas of critical habitat (Zone 1A), including virtually all of the older-aged forest in the Central Highlands, are protected in the proposed CAR Reserve System in either the Yarra Ranges National Park or in the Special Protection Zone in State forest. Timber harvesting is excluded by prescription from Zone 1B habitat (the presence of dead, mature or senescing trees, or wattle understorey) in State forest, largely comprising 1939 regrowth areas, until it no longer provides suitable Leadbeater's Possum habitat.

Baw Baw Frog

Recent survey has recorded Baw Baw Frog in Subalpine Woodland and Montane Wet Forest EVCs on the south-west face of the Baw Baw plateau in the Baw Baw National Park and Alpine Resort. Further survey in 1996 located the frog in Montane Wet Forest and Subalpine Wet Heathland in State forest on the south-west face of the Baw Baw escarpment, generally above the 1100 m contour. Areas which have not been surveyed but which contain potential habitat are located on the northern escarpment of the Baw Baw plateau. The new information on the distribution of the species will necessitate a revision of the existing Flora and Fauna Guarantee (FFG) Action Statement and will be considered in the development of a Recovery Plan.

Baw Baw Frog breeding habitat is found mainly along drainage lines. Following the breeding season, frogs may move away from the drainage lines, but how far is presently unknown. To ensure that viable populations of the Baw Baw Frog persist in the long term, a sufficient area of its habitat must be protected. Areas of habitat on State forest will be protected once the frogs use of breeding habitat is better understood. To achieve this, the following research and survey will be undertaken:

- identification of breeding and non-breeding habitat;
- survey for the presence of the frog on the northern face of the Baw Baw plateau;
- further survey and monitoring of populations on the southern face of the Baw Baw plateau State forest and reserved areas;
- the seasonal use of breeding and non-breeding habitat; and
- response to disturbance in the Montane Wet Forest.

Until the research and survey results are available, so as not to foreclose any long-term protection strategies, NRE will adopt a precautionary approach above the 1000 m contour surrounding the Baw Baw plateau (see Map 1) by:

- scheduling new coupes only in areas determined not to contain Baw Baw Frog habitat; and
- minimising fragmentation of Baw Baw Frog habitat by utilising existing roads wherever possible.

Where timber harvesting above the 1000 m level on the Baw Baw plateau is proposed prior to the results of the survey and research, the interim strategy provides for:

- training of field staff in the identification of potential breeding habitat;
- field survey, prior to harvesting, to confirm presence/absence of the species;
- protection of identified breeding habitat and associated interim protection zone of up to 200 m; and
- access for timber harvesting under standard prescriptions only in areas not containing potential habitat.

Long term protection measures for the Baw Baw Frog will be guided by the results of the survey and research obtained during the next three to five years. This strategy is designed to ensure that viable populations of the Baw Baw Frog persist in the long term.

Criteria for Old-growth Forest

Old growth is relatively scarce in the Central Highlands, largely as a result of past agricultural selection and the effects of wildfire. On public land a total area of old growth of some 25 993 ha has been identified, distributed across 16 vegetation classes. Old growth represents approximately 4.4 per cent of all extant vegetation in the region.

The national reserve criteria require that:

- where old-growth forest is rare or depleted (generally less than 10 per cent of the extant distribution) within a forest ecosystem, all viable examples should be protected, wherever possible. In practice, this would mean that most of the rare or depleted old-growth forest would be protected. Protection should be afforded through the range of mechanisms described in the national reserve criteria; and
- for other forest ecosystems, 60 per cent of the old-growth forest identified at the time of assessment would be protected.

As shown in Table 3.3, of the 16 EVCs in which old-growth forest has been identified, 11 EVCs have less than 10 percent of their current extent present as old-growth forest. For most of these EVCs the national reserve criterion of protecting all viable examples has been achieved in the proposed CAR Reserve System.

Small areas (totalling 30 ha) of Herb Rich Foothill Forest, Damp Forest and Wet Forest old-growth occurs on land managed by Melbourne Water Corporation. The areas of Damp Forest and Wet Forest old growth are located in the Thomson Reservoir buffer, and Herb Rich Foothill Forest occurs around Beaconsfield Reservoir.

For the remaining 5 EVCs (Heathy Dry Forest, Cool Temperate Rainforest, Montane Dry Woodland, Heathy Woodland and Valley Grassy Forest), the national reserve criteria for protection of 60 per cent of the old-growth forest identified at the time of assessment has been achieved in the proposed CAR Reserve System, ie. in dedicated reserves and the Special Protection Zone (SPZ) in State forest. Additional protection of Valley Grassy Forest old growth would also be provided if the Yan Yean catchment was incorporated into the proposed CAR Reserve System as discussed in the earlier section of this report describing the conservation of endangered, vulnerable or rare EVCs. If this was to occur, the level of old growth protection for Valley Grassy Forest would increase by 195 ha, from 71 per cent to almost 100 per cent of its occurrence.

Table 3.3: Representative Conservation of Old Growth

Ecological Vegetation Classes	Area EVC (ha)	Percent of EVC as Old Growth	Area Old Growth (ha)	Percent of Old G			
				Conservation Reserves	Forest Ma		
					SPZ		
					a	b	c
Lowland Heathy Foothill Forest	42,805	<1	22	61.5	38.5	0.0	0.0
Riparian Forest	31,801	<1	130	17.7	81.0	1.3	0.0
Heathy Dry Forest	14,436	64	9,214	32.7	46.0	1.2	0.2
Grassy Dry Forest	41,579	<1	7	0.0	99.9	0.0	0.0
Herb-rich Foothill Forest	123,049	<1	77	1.0	83.8	0.0	0.0
Damp Forest	162,307	<1	547	47.0	51.9	0.0	0.0
Wet Forest	120,068	4	5,048	95.7	4.0	0.0	0.0
Cool Temperate Rainforest	12,970	13	1,690	96.8	3.2	0.0	0.0
Montane Dry Woodland	7,050	57	4,040	1.7	57.8	1.0	0.4
Montane Damp Forest	20,150	<1	75	40.5	59.5	0.0	0.0
Montane Wet Forest	49,678	2	940	96.4	3.6	0.0	0.0
Montane Riparian Thicket	3,056	<1	10	82.3	11.9	0.0	0.0
Sub-alpine Woodland	7,259	<1	3	100.0	0.0	0.0	0.0
Shrubby Foothill Forest	35,482	<1	32	89.6	10.4	0.0	0.0
Valley Grassy Forest	7,201	10	696	70.8	0.0	0.0	0.0
Heathy Woodland	6,684	51	3,427	80.5	5.9	0.0	0.0

As noted earlier, the national reserve criteria require that all reasonable effect should be made to provide for old-growth forest conservation in dedicated reserves on public land and this will be considered when finalising the tenure of the CAR Reserve System.

Criteria for Wilderness

The national reserve criteria require that ninety percent, or more if practicable, of the area of high quality wilderness that meets minimum area requirements should be protected in reserves.

The assessment of wilderness in the Central Highlands has been undertaken in the wider regional context of the forests of Eastern Victoria, given their broad similarity. The assessment of Eastern Victorian forests (VicRFASC 1996b) identified 18 areas of high wilderness quality. None of these areas are within the Central Highlands region. Ninety five percent of the total area delineated in the assessment of Eastern Victorian forests as significant for high wilderness quality is protected in the existing reserve system, thereby satisfying the national reserve criteria.

The national estate assessment in the Central Highlands identified the Upper Yarra catchment within the Yarra Ranges National Park as the most remote and natural area in the region.

Other CAR issues considered, including those raised during consultation

An extensive program of public consultation has been undertaken as part of various Victorian land use planning process in the Central Highlands. In addition consultation associated with the RFA process has included three rounds of public meetings, distribution of reports and information kits, individual meetings with stakeholders, involvement of stakeholders in assessment workshops (such as National Estate and Social assessments) and receipt of written comment.

A considerable range of views, at times in sharp contrast, has been expressed through each of these mechanisms and the Steering Committee has considered these in developing the preferred position for the proposed CAR Reserve System described in this report. In line with the objectives of the RFA, inputs have been considered in the context of the development of a comprehensive RFA package incorporating a proposed CAR Reserve System, ESFM across the forest estate and industry and community development.

This section provides a discussion of other major issues examined as part of the development of the proposed CAR Reserve System and raised through the consultation process. A range of other issues were also raised that pertain to industry and other forest uses and forest management have been discussed in Chapter 4.

Some stakeholders suggested that the area of forest harvested using alternative harvesting methods to clearfelling should be expanded. Research into alternative harvesting methods has been undertaken and there is a commitment to operational trials of systems such as Retained Overwood Retention in appropriate areas of the Central Highlands where protection of wildlife habitat is a priority.

Protection of threatened species in the Central Highlands has been given considerable attention and a range of detailed strategies based on the best available scientific information have been developed. Leadbeater's Possum has an approved Action Statement and a Recovery Plan is nearing completion. All of the measures to protect the species in these

documents have been developed with the assistance of relevant experts and have been incorporated into the management strategies for the Central Highlands forests.

Detailed strategies have also been prepared for Powerful, Sooty and Masked Owls and the Spot-tailed Quoll and require the protection of significant areas of suitable habitat (eg Masked Owl 500 ha), replicated across the region. Details are contained in the proposed Central Highlands Forest Management Plan (NRE 1996). Specific protection is also afforded to other sites, for example den and latrine sites for Spot-tailed Quoll. These strategies are also based on the best available scientific information.

Inclusion in the proposed CAR Reserve System of large undisturbed areas of forest across the Central Highlands and the protection of old growth forest also provides important habitat for a range of hollow-dependent species such as the Yellow-bellied Glider.

Proposals have been put forward regarding the inclusion of particular areas in the CAR Reserve System. Some of the proposed additions relate to increasing the width of links between components of the Yarra Ranges National Park and the creation or expansion of links between existing reserves. These issues have been considered in the development of the proposed CAR Reserve System and some adjustments have been made where they also contribute to the increased protection of values consistent with the National Reserve Criteria. As discussed earlier, additional areas in the headwaters of the Acheron River have been included in the proposed CAR Reserve System and provides for the creation of a wider link between the Maroondah and O'Shannassy catchments which are both included in the Yarra Ranges National Park and enhanced reserve design.

Other proposals suggested were intended to provide added protection for a range of values, including Leadbeater's Possum, rainforest, old growth and habitat for other species of fauna, by consolidating and linking areas that already form part of the proposed CAR Reserve System. These issues have been considered and some adjustments made, but it is also necessary to provide access to high quality timber resources across the region. It has therefore not been possible to adopt some of these proposals. Rationalisation of reserve boundaries so that they conform to topographic features such as ridges and streams has occurred, particularly in the north-eastern part of the region. However, this approach is not appropriate in relation to values protected solely by prescriptive means, such as rainforest and Leadbeater's Possum habitat. It must also be recognised that the links between existing reserves are usually more than 200 metres wide and are surrounded by native forest, parts of which may be harvested over the period of a rotation. However, for much of that time, these areas make an important contribution to the protection and maintenance of biodiversity values.

In the course of discussions associated with the Central Highlands Forest Management Plan and the RFA, several groups and individuals have also highlighted the need to maintain the range of environmental and economic values that occur on the southern montane slopes of the Baw Baw Plateau.

The area contains a variety of significant conservation values that have been subject to minimal disturbance. These include Leadbeater's Possum and other arboreal mammal habitat, rainforest, threatened flora and fauna such as the Baw Baw Frog, Sooty Owl and Baw Baw Berry, and sites identified as biological refuges. A number of these values identified through the National Estate studies or flora and fauna surveys are represented within the adjacent Baw Baw National Park. The proposed CAR Reserve System provides for the protection of rainforest, including Rainforest Sites of Significance, Leadbeater's Possum

habitat and Sooty Owl habitat within the SPZ. The SPZ also provides protection for other significant flora and fauna.

It is acknowledged that the overall ecological integrity of the area in particular the continuum of values in conjunction with the higher altitude portion of the adjacent National Park, is an important value that needs to be considered. However, the area also contains significant timber resource values, in particular, high quality ash stands that could provide considerable resources to the high value-adding wood products industry which has established a strong export market for finished products. Additional constraints on timber harvesting in the Thomson catchment, especially for ash, and the proposed conservation measures elsewhere in the region, limit the availability of alternative areas for harvesting to maintain supply at existing levels and the needs of established value-adding based export markets.

As discussed in the previous biodiversity reserve criteria section, Baw Baw Frog has been identified in State forest on the south-west face of the Baw Baw escarpment, generally above the 1000 m contour, with ongoing research and survey actions proposed to guide future forest management and during the development of the Recovery Plan for the species. Protection of an area containing the highest concentration of environmental values on the south face of the Baw Baw plateau will be considered in conjunction with developing the long term protection strategy for the Baw Baw Frog.

Some stakeholders have raised concerns that the reserve system is already too large and provides more than the necessary levels of protection specified in the national reserve criteria. It has therefore been proposed that areas of the reserve system that are not required to meet the national reserve criteria be excised. While at first glance the criteria appear to have been exceeded, the need to protect other values such as endangered species may necessitate additional areas of forest over and above the numerical targets established in the national criteria. Endangered species protection is an equally important element of the national criteria.

Further, it has been proposed that in the event that a wildfire destroys part of the reserve system, for example, a considerable area of the Yarra Ranges National Park, salvage logging of the burnt area should be permitted. Salvage logging in existing national parks is not permitted, given that, while a fire event may result in disturbance to some values, others would still persist and could be impacted by salvage logging activities. An example would be where the fire burns into Leadbeater's Possum habitat. Salvage logging in such an area would remove the dead trees which, if left on the site would provide nesting hollows for the Possum in much the same way as did the 1939 fires.

Many of these issues have also been considered in the review of land use in the region by the Land Conservation Council which was completed in 1994. The Council received many submissions discussing many of the issues raised above and most recommendations have subsequently been adopted by the Victorian Government.

Private land

The National Forest Policy Statement (NFPS) established that the CAR Reserve System will in the first instance be selected from public land. The national reserve criteria (JANIS 1997) indicated that two key priorities for biodiversity protection in private native forests are to ensure comprehensiveness so that replicated samples of all forest ecosystems are included in viable reserves across their geographic range and to meet the special needs for endangered, vulnerable or rare species or ecosystems on private land.

Within the Central Highlands, 21 rare or endangered EVCs contain a portion of the EVC on private land, and approximately half of these are non-forest EVCs. The national reserve criteria require that remaining occurrences of endangered and rare EVCs across all lands should be protected as far as is practical, and that conservation effort should be highly focused on the priority forest species and ecosystems. A review of these EVCs in a State and regional context has identified several EVC as being of high conservation priority in the Central Highlands. A range of mechanisms for the protection of significant areas in private land and other public land should be given consideration.

The NFPS and the national reserve criteria recognise that a number of strategies are appropriate for protecting biodiversity on private land, ranging from purchase of priority areas to the development of incentives for the establishment of mechanisms to ensure protection, such as covenants on freehold land. Any mechanisms used to provide a contribution to the CAR Reserve System from private lands will be voluntary.

Initiatives in Victoria reflect a recognition that protecting biodiversity involves all tenures. Governments are working cooperatively with land holders for the conservation of habitats on private land. The range of programs in place in Victoria include statutory protection, binding agreements (such as covenants) and non-binding agreements. Statutory protection and binding agreements are appropriate mechanisms through which private land can contribute to the CAR Reserve System.

Provisions of the *Flora and Fauna Guarantee Act 1988* and voluntary conservation covenants under the *Victorian Conservation Act 1972* are two of the main mechanisms. Native Vegetation Controls under the *Planning and Environment Act 1988* also provide for the protection of native vegetation. Land Management Cooperative Agreements under the *Conservation Forests and Lands Act 1987* and Wildlife Management Cooperative Areas under the *Wildlife Act 1975*, which can also be binding on landholders, are less common.

The *Flora and Fauna Guarantee Act 1988* includes provisions for the protection of habitat that has been identified as being critical to the survival of any species. Other key features of the Act for biodiversity conservation include the listing of threatened species, communities and threatened processes, preparation and implementation of Action Statements which outline management programs for listed species, and establishing protected flora controls which are aimed at preventing threats on private land and critical habitats. The Act also provides for Interim Protection Orders for the protection of critical habitat.

Voluntary conservation covenants under the *Victorian Conservation Act 1972* are negotiated by the Trust for Nature (Victoria). Covenants are used to conserve areas of ecological significance as well as areas with cultural, historical, landscape or recreational values. The covenants are placed on the land title and are binding on all future owners. Donations are requested from landowners seeking covenants to assist in the costs of the covenants. The Trust regularly monitors properties to ensure the covenant conditions are being observed.

The Trust also purchases properties which are either managed by the Trust for conservation purposes, resold with a conservation covenant or transferred to the Crown. In the latter case, the Trust can specify how the land is to be managed. The Trust also acts as a broker to purchase conservation land on behalf of the State Government.

Conservation covenants in the Central Highlands region cover over 500 ha and provide for the protection of additional areas of native vegetation on private land. These covenants may include endangered, vulnerable or rare EVCs, however the exact area is yet to be determined.

Opportunities for establishing a process to link the conservation of priority EVC in the Central Highlands with initiatives such as the Commonwealth Natural Heritage Trust and National Vegetation Inventory will be considered.

3.4 IMPLICATIONS OF THE PROPOSAL

Completion of the RFA, incorporating a CAR forest reserve system and the ecologically sustainable forest management of forests both on and off-reserve will provide the basis for the long-term conservation of Central Highlands forests.

Adoption of the proposed CAR Reserve System would add approximately 115 000 hectares to the reserve system evaluated as part of the Deferred (Interim) Forest Assessment. The final tenure of these areas has not yet been determined. A consideration in determining the final tenure of the reserve additions will be the representation in dedicated reserves of particular EVCs, the boundaries of each area in relation to existing reserves, and the range of uses considered appropriate in each area. The Steering Committee will consider comments on any implications related to tenure in developing the RFA. In general:

- timber harvesting would be precluded from any areas added to the CAR Reserve System
- access for mineral exploration, mining and extractives would be precluded from any areas added to the National and State Park system, consistent with provisions of the *Mineral Resources Development Act 1990* and *Extractive Industries Development Act 1996*; and
- the CAR Reserve System may have some implications for the availability of forest areas currently used for firewood collection and other wood products, extractives (rock and gravel), apiculture and some recreational access.

Consistent with the national forest policy and national reserve criteria, economic and social factors have been considered in designing the proposed CAR Reserve System. Establishment of the proposed CAR Reserve System will provide a world class reserve system, continue to provide for a range of uses in the forests of the Central Highlands and enable current licence commitments to the timber industry to be met.

Consistent with the *Mineral Resources Development Act 1990*, new exploration licences and subsequent mining are not permitted in National Parks, Wilderness Parks, State parks and Reference Areas. Exploration and mining may be permitted in other parts of the CAR Reserve System where the identified conservation values are not incompatible with exploration and mining. Mine sites will be rehabilitated to standards based on world best practice. The approval of the Minister for Conservation and Land Management is required before exploration or mining can be carried out on restricted Crown land. On unrestricted Crown Land the Minister for Conservation and Land Management's consent is not required; however the Minister must be consulted.

Given that current sawlog licence and pulpwood commitments can continue to be met from the region there are unlikely to be any adverse social implications arising from the establishment of the proposed CAR Reserve System. However, as mentioned previously, there may be some implications for certain activities in specific areas depending on the tenure of particular components of the CAR Reserve System in the RFA..

4. FOREST INDUSTRY OPPORTUNITIES

4.1 NATIVE WOOD BASED INDUSTRIES

In 1994-95, Australia had a \$2 billion per year trade deficit in wood and paper products (ABARE 1996). Projections of global wood supply and demand over the next 20 years indicate significant changes in market conditions as availability of wood from traditional areas of supply decreases and demand increases with economic development, particularly in Asia. These two factors provide substantial investment opportunities for Australia's forest industries over the next three decades.

Through the consultative mechanisms provided by the RFA process, including the social assessment process, local communities and stakeholders identified issues which need to be addressed to promote the timber industry and regional development. Through a range of mechanisms including the RFA, the Commonwealth and Victorian governments are addressing key issues raised by stakeholders, including:

- resource certainty;
- product development and potential marketing opportunities; and
- public log pricing and allocation policies.

In light of the long term nature and capital intensity of most forestry investments, increased certainty of resource availability is necessary to promote a more efficient and internationally competitive forest based industry. In this respect, the Central Highlands RFA will be part of the framework that permits the forest industries to be internationally competitive and delivers desired environmental outcomes. This framework and its potential benefits are discussed below.

The Commonwealth and Victorian governments have also introduced initiatives addressing the issues of product and market development and pricing and allocation policies. While these initiatives are not directly related to the RFA, they are described below to provide the context of forest industry policy.

Resource Certainty

One of the objectives of Regional Forest Agreements is to provide greater certainty for forest based industries, including access to timber resources. Resource availability in the region has been influenced by Victorian government land use planning decisions, including those based on the recommendations of the Land Conservation Council.

Government acceptance of the 1994 LCC recommendations for additions to National parks in the Central Highlands led to a reduction of 3400 ha of net productive area, as well as a prohibition of logging in all stands of pre 1900 Ash forest. The total effect is an estimated reduction of about 5100m³ of C⁺ sawlogs per annum or a reduction of 2.6 per cent, 12.5 per cent and one per cent in the Central, Dandenong and Central Gippsland FMAs respectively. The Council recommended that any change to sustainable yield rates should not be made until after 2001, at which time the estimated reduction could be offset by predicted increases associated with the maturing ash resource, thereby ameliorating adverse economic and social impacts that may have arisen if the changes had been implemented immediately.

Acceptance in the RFA of the State forest zoning developed through the Forest Management Planning process would also change potential timber resource availability. The proposed Plan zoning includes areas in the Special Protection Zone (SPZ) in State forest for the protection of a range of values. Timber harvesting is not permitted in the SPZ. The zoning is designed to maintain species and genetic diversity through the protection of a proportion of all EVCs across all public land tenures, and specific conservation measures for known rare or threatened species, such as Leadbeater's Possum and large forest owls.

Establishment of the proposed CAR Reserve System incorporating these changes will provide a world class reserve system and still enable current licence commitments to industry to be met. New timber resource information will become available from mid-1998 from the Statewide Forest Resources Inventory Program (SFRI). This will be used in conjunction with other information about resource availability in the next review of sustainable yield in 2001.

Certainty about resource availability is a major issue for the timber industry to enable investment decisions to be made with confidence. A statewide sawlog licensing system based on 15 year licences was introduced in 1987. The licences were introduced to guarantee long-term access to sawlog resources, promote investment and facilitate the transition to sustainable supply levels. A direct benefit of such a system has been the increased level of confidence within the Victorian sawmilling industry, which has seen a significant increase in the level of investment in value-adding operations, particularly in the Central Highlands region.

On completion of a Central Highlands RFA it is intended that the Commonwealth will remove export controls on native hardwood sourced from the Central Highlands region. The lifting of these export controls, together with the maintenance of the existing Victorian sawlog licensing system, will increase certainty of access to hardwood resources and promote an investment climate which is conducive to the development of internationally competitive forest based industries. The present flexibility with respect to the trading of sawlog volumes between licensees also allows processors to respond to market conditions and maximise opportunities.

The issue of certainty of access to public hardwood resources is equally applicable to pulpwood (or residual log) processors. As outlined in the Central Highlands Comprehensive Regional Assessment Report (VicRFASC 1997a), Australian Paper has a legislated supply of residual logs from State forests until 2029-30. Much of this fibre will be sourced from the Central Highlands region, to be domestically processed at the integrated pulp and paper making activities at Maryvale, in the Latrobe Valley. Other companies also process pulpwood in Australia which is derived from the Central Highlands. Currently about 17 per cent of total pulplog and sawmill residues produced in the region are exported. Of this only about nine per cent of pulplogs produced in the region are exported (VicRFASC 1997a).

Investment in the Timber Industry

Over the past decade, the Central Highlands hardwood sawmilling industry has undertaken a significant level of investment and mill upgrading so as to reposition an increasing proportion of its production into markets for higher value products. Value adding initiatives facilitated by the long term licences have increased the production of kiln dried timber and the recovery of sawn timber from lower grade logs. Investment in kiln drying by enterprises in the Central Highlands accounts for about 70 per cent of Victoria's kiln drying capacity (Gooding 1997). The industry has developed techniques to saw and kiln dry regrowth ash and is increasing the production of value added products for domestic and export markets. These changes have required:

- substantial capital investment in value adding facilities;
- development of a larger and more skilled workforce;
- development of new markets in Victoria, interstate and overseas; and
- development of new products.

A recent study commissioned by the industry (Wareing 1997) illustrates the type and magnitude of new and proposed investments that have been taking place in the hardwood sawmilling sector. The study surveyed eight, small to medium sized companies, each with at least 25 years in the Central Highlands sawmilling industry.

The survey showed the eight companies invested over \$60 million in value added processing over the past decade, including:

- new kilns and other processing facilities (\$34.3 million);
- increased seasoning stock (\$17.6 million); and
- acquisition of additional sawlog resources (\$8.2 million).

About two-thirds of the investment in new processing facilities has occurred in the last three years. Investment in value added processing has resulted in the companies moving away from mainly being producers of green structural timber towards being producers of seasoned and, increasingly, appearance grade timber. In 1987-88 kiln-drying accounted for less than 25 per cent of production volume for the eight companies, in 1995-96 this figure increased to almost 70 per cent (Wareing 1997), a level which meets the nominal industry target set by the Timber Promotion Council. In Victoria as a whole, the amount of hardwood timber being kiln dried has grown from about 10 per cent to 40 per cent of production over this period (Gooding 1997). Investment by the eight companies in value added processing has also contributed towards:

- revenue from sales rising from \$22.4 million in 1987-88 to \$45 million in 1995-96; and
- employment growing from 235 to 394 persons over the last ten years.

While the industry has re-structured, only 15 per cent of investment in the past decade has been targeted at additional sawlog resources to increase log throughput and achieve economies of scale. Over the past ten years production of sawn timber from the eight companies has increased from 55 920 m³ to 85 490 m³ (Wareing 1997). This lift in production is mostly due to additional resources, but also results from factors such as growth of markets for short length and small dimension material.

Corresponding with changes in production have been changes in marketing arrangements, in particular the penetration of markets outside Victoria. In 1987-88 only one company sold more than 10 per cent of its production outside Victoria, now four companies sell greater than 30 per cent of their production outside Victoria (Wareing 1997). Significant markets for Victorian timber now exist in New South Wales, Queensland and Japan. It is estimated that as much as 50 per cent of Victorian hardwood production will, ultimately, be exported (Gooding 1997). Other trends have been to reduce direct sales to builders and increase direct sales to manufacturers.

Further development in value adding, marketing and product development

While the RFA can address a number of issues associated with the investment environment in which forest based industries operate, it will not be prescriptive about the nature of industry expansion and investment. These decisions will be made by private investors and companies

in light of normal commercial considerations. However an assessment of the further growth potential of the forest industries drawing hardwood resources from the Central Highlands identified a number of potential investment and employment opportunities. These include: further increases in the level of value-adding in the sawmilling sector; the expansion of existing pulp and paper processing facilities; and investment in the wood based panels sector.

Similarly, the longer term industry vision for the Central Highlands hardwood timber sector is the development of full vertical integration, enabling it to locally process the full range of wood products from high value sawn timber through to utilisation of residues to produce wood panel products. An important component of such a vision is certainty about future availability of resources and markets.

The eight sawmilling companies included in the industry survey plan to invest a further \$25.1 million over the next three years, involving \$14.2 million in new processing facilities, \$8.7 million in increased seasoning stocks and \$2.2 million in acquiring additional sawlog resources. Further investment will allow the companies to increase (to about 85 per cent) the proportion of sawn timber that is processed into kiln-dried and value added products and the proportion of appearance grade products produced from kiln-dried timber. Investment is expected to result in employment growing to 484 persons and sale revenue increasing to \$82 million by 2005-06.

In March 1996, Australian Paper announced the expansion of its fine paper business through investment of \$330 million in a new fine paper machine at the Maryvale mill. The new paper machine will have a capacity of 160,000 tonnes per annum, with a planned start-up date in September 1998. The expansion at Maryvale will be within the site's existing Environment Protection Authority licences for water discharge, and is likely to generate significant economic and employment benefits for both the La Trobe Valley and Victorian economies. Assuming an average price of \$1500 per tonne of high quality writing paper, the new investment at Maryvale may generate an additional \$240 million in annual product sales. The mill expansion at Maryvale is estimated to generate employment for up to 250 people, with another 250 people directly employed during the construction period.

As well as major capital investment in operations, industry is also establishing more effective marketing networks and opportunities for product development. In particular, many companies operating in the industry have been developing co-operative networks to target major national and export markets such as Japan and there are significant opportunities in these areas.

One such initiative is the Australwood Export Network, which allows participating companies to trade individually, but also as a collective force. The network offers combined research, promotion, quality assurance and marketing activities. A major focus of the Australwood Export Network is the Japanese market, following an initial study jointly funded by industry and the Commonwealth AusIndustry Program. The Commonwealth assisted the industry in establishing the Network, and provided initial support for technology transfer in kiln drying hardwood sawmilling.

The work of the timber industry in developing new markets for value added products complements the Victorian Timber Promotion Council's development of a detailed quality assurance program for hardwood sawntimber to ensure consistency in supply of products targeted to customer requirements (DPIE Agribusiness Programs Annual Report 1993-94, 1994-95).

In order to promote further manufacturing opportunities, the Furniture Industry Association of Australia is developing a national export program and strategy for timber and furniture producers and exporters to promote Australian furnishings to the Japanese market. These timber promotion and quality assurance programs are funded by industry with Commonwealth assistance (DPIE Agribusiness Programs Annual Report 1995-96). In 1994 less than 5 per cent of Australian furniture was exported. This has increased by 10 per cent in the last two years, with Victorian manufacturers contributing significantly to this outcome (Cock 1997).

The Victorian and Commonwealth governments are jointly committed to ensuring that hardwood resources sourced from the Central Highlands region are utilised to their maximum potential, recognising the economic and social benefits flowing from competitive value-added based industries.

Pricing and allocation policies

Through the pricing and allocation of the logs it supplies, the Department of Natural Resources and Environment (DNRE) has a major influence on the efficiency and competitiveness of downstream processing industries and private growers. In recent years, DNRE has responded to changing community expectations and policies towards the management of commercial aspects of public forests and have adopted more market oriented pricing methods. This includes greater flexibility in the sale of short term parcels of timber, and ongoing review of log royalties in light of market conditions. As noted in the Statewide ESFM report (VicRFASC 1997b), the ongoing reform of DNRE accounting systems to promote greater transparency between commercial and non-commercial forest production activities is acknowledged as a positive step towards increasing the efficiency of public wood supply activities.

A key feature of the existing log allocation is the classification of logs into four sawlog grades or as residual logs, according to their sawlog quality. Residual logs are largely used as fibre input for the production of pulp and paper products. The log grading system is designed to encourage value adding and to maximise the economic and social benefits from the utilisation of the timber resource. For example, a proportion of better quality logs below D grade sawlog from the Central Highlands region are also converted into sawntimber products such as pallets and fencing material. Further improvements in the grading of logs below D grade sawlog may facilitate additional value adding activities, such as composite products made from small dimension timbers.

As part of the Competition Principles Agreement, Victoria will review legislation and policies relevant to the allocation and pricing of hardwood logs from State forest before the end of 1999. Competitive neutrality principles will be taken into account in any changes following the review.

Potential Forest Industry Opportunities

Sawmilling

As discussed in the Central Highlands CRA report, sawmillers drawing hardwood resources from the region are intending to further increase the degree of value adding within the industry over the next few years. In particular, sawmillers intend to increase the production of higher value products such as dried and appearance grade products (VicRFASC 1997a).

In order to assess the potential benefits flowing from increased value adding in the sawntimber industry, a regional linear programming model of production forestry known as

FORUM (as described in Hansard *et al* 1996) has been used to assess the impact of these proposed changes to product output on the overall level of industry employment and value of production to 2005-06. In constructing this scenario it has been assumed that sawlog and pulplog availability remains at current levels.

In order to assess the impact of an increased level of value adding undertaken by the Central Highlands sawntimber industry, a scenario based on the results from a recent sawmill survey conducted by ABARE was examined. Under this scenario (Scenario A), responses from the sawmill survey regarding anticipated production shares and mill capacities in 2005-06 were used. These are summarised in Table 4.1 which shows the proportion of sawntimber products sold by sawmills drawing hardwood resources from the Central Highlands in 1995-96 and also the sawmills' anticipated production split in 2005-06 (these figures differ from preliminary estimates presented in the Central Highlands CRA report due to revised survey estimates).

Table 4.1: Current and anticipated Central Highlands sawntimber production and major markets ^{a)}

Product	Production share		Major market in 1995-96
	1995-96 %	2005-06 ^{b)} %	
Unseasoned sawntimber	35.0	17.9	Melbourne and other Victoria
Palings and pallets	13.5	6.8	Melbourne and other Victoria
Dried structural grade	27.3	45.3	Melbourne, Brisbane and other Victoria
Appearance grade – standard	6.3	8.2	Melbourne, Brisbane, Sydney and Japan
Appearance grade – select	8.2	11.3	Melbourne, Brisbane, Sydney and Japan
Other seasoned	9.7	10.5	Melbourne, Japan, Brisbane and Adelaide
Total	100.00	100.00	

a) Estimates for industry based on sawmill survey. These estimates exclude specialist recovery mills. b) Anticipated production share.

It should be noted that the production shares reported in Table 4.1 refer to the industry as a whole, and many individual sawmillers process a higher proportion of dried and appearance grade product than the industry average. For example, in a recent study commissioned by the industry it was found that the eight mills surveyed intended to produce 85 per cent of total production as dried and appearance grade product (Wareing 1997). The variation in intended future production across sawmills was recorded in the recent survey of sawmills conducted as part of the Central Highlands CRA, which included those mills intending to produce a high proportion of dried and appearance grade product over the next few years, as well as a number of mills producing a combination of dried and unseasoned sawntimber products.

The CRA survey data was also used to adjust operating costs, mill capacity and factor in employment levels for those mills. An important characteristic of the production of kiln dried sawntimber is that generally it is more labour intensive compared to the production of commodity grade products such as unseasoned sawntimber. It has been estimated, for example, that up to 1.5 times more labour is required in the production of kiln dried timber compared to the production of unseasoned timber (Network for Excellence in the Hardwood Timber Industry 1996).

In Table 4.2, the current output and employment of the Central Highlands sawmill industry is compared to estimated output and employment under the further processing scenario. It can be seen that under the further processing scenario the gross value of output and level of employment increases significantly from current levels. Under the further processing scenario there is an additional 140 direct sawmilling jobs in 2005-06 compared to 1995-96, together with an overall increase in the gross value of production of \$52 million over the same period.

	Unit	1995-96 ^{a)}	Scenario A ^{c)}
Mill production	'000m ³	166	246
seasoned timber	'000m ³	71	182
greensawn timber	'000m ³	95	64
Gross Value of Production ^{b)}	\$m	81	133
seasoned timber ^{b)}	\$m	53	110
greensawn timber ^{b)}	\$m	28	23
Employment	no.	680	820

a) Estimates based on sawmill survey. b) In 1995-96 dollars. c) Results reported for 2005-06.

While the total level of employment increases under the further processing scenario it must be noted that in order to achieve the estimated levels of employment and gross value of output a degree of structural adjustment within the Central Highlands sawn timber industry would be required.

Under an increased value adding scenario, industry may respond to changes in a number of ways, from altered supply arrangements (for example existing mills supply green material to a central processing plant) to rationalisation of mills to a smaller number of processors with higher inputs. The actual changes will be determined on the individual decisions and other economic factors affecting individual mills over time. The degree to which structural adjustment occurs will affect the capacity of the industry to achieve the potential economic gains described in Scenario A.

In addition to the direct employment and value of production benefits from increased value adding in the sawntimber industry, there are likely to be further economic and social benefits arising from proposed industry changes. The flow-on effects to the state economy from increased value-adding in the sawntimber industry may be broadly estimated using appropriate input-output and employment multipliers. Drawing on available multipliers for the sawmilling industry in the Victorian economy, it is estimated that the total value of turnover generated from sawmill activities under Scenario A may contribute \$248 million to State output. This estimate is based on a state output multiplier of 1.87 for the sawmilling sector. Similarly, the employment generated from sawmill activities under Scenario A may contribute 1886 jobs to the Victorian economy, based on a State employment multiplier of 2.3 for the sawmilling sector.

These industry development opportunities may bring significant benefits to communities within the region. As outlined above, there is potential for increased value-adding by hardwood mills located within the region including those at Alexandra, Drouin West, Noojee, Powelltown, Rokeby, Seymour, Toolangi, Warburton, Whittlesea and Yarra Junction, as well as for a number of mills located outside of the region. These mills currently access resource from within the Central Highlands.

It is suggested that value-adding initiatives within these particular townships would greatly benefit the local communities, but would also have significant benefit to other communities in which employees from these mills access goods and services. For example, based on information collected as part of the RFA process which outlines expenditure patterns by the timber industry and its employees, value adding opportunities in Alexandra would have considerable benefit to Alexandra itself as well as Melbourne and Healesville. Further development of value adding at the mill in Toolangi would also indirectly benefit the townships of Healesville and Lilydale. Other townships which may be positively affected by such changes include Warragul, Drouin, Yea, Heyfield, Sale, Yarra Junction and Warburton. Other smaller townships within the region may also experience some benefit. Many of the communities identified above have a relatively high economic and cultural dependence upon forest-related industries and as a result such opportunities would significantly benefit these small rural communities.

Pulpwood processing

Given the large current and planned level of capital investment at the existing Maryvale mill, it is likely that the main developments in the region's pulp and paper industry to the year 2010 are likely to centre around expansion of the existing facilities (as discussed previously). However, it is likely that some pulpwood processors will be decreasing the volume of logs sourced from the Central Highlands RFA region during the period of the RFA which may make a number of other industry development opportunities possible. As existing users decrease their demand for Central Highlands' pulpwood, a number of industry development opportunities are possible. These include the construction of another recovery mill to further process pulplogs, the construction of a wood based panel plant or further increases in the export of pulpwood. It must be noted that while these potential developments are possible, it is unlikely that more than one large new development can proceed, given the expected future availability of pulpwood.

As outlined by Wareing (1997) there is currently a recovery sawmill sourcing over 90 per cent of its log intake from the Central Highlands RFA region. This mill processes around 82 000 tonnes of pulpwood per year, employs around 40 people and has a gross value of production of around \$7 million per year.

It is also possible that beyond the year 2010, a wood based panel plant (such as a medium density fibreboard plant) could utilise pulpwood from the Central Highlands. However, due to the large scale of these plants it is likely that significant pulpwood supplies would be required for such a development to be viable, which may be sourced from both within and outside the Central Highlands region. For example, a medium density fibreboard plant would require at least 250 000 tonnes a year of pulpwood. Such a plant could be expected to employ around 110 people when operating at full capacity (VicRFASC 1996c).

Warragul, as a major centre in the Central Highlands may also benefit from the opportunities arising out of the current expansion of the Maryville pulp and paper mill. However the most significant effects for communities will be experienced in La Trobe Valley which is within the Gippsland RFA region.

Facilitating investment and best-use of timber resources

As well as increasing investment certainty, governments are also committed to facilitating the best-use of timber resources and to ameliorating any negative economic and social impacts of land-use proposals. The requirements to achieve these objectives will vary from region to region, depending on the level of opportunities or impacts.

The Forest Industry Structural Adjustment Package (FISAP) was developed during the negotiation of Deferred (or Interim) Forest Agreements which provided interim protection for areas which may be needed to form a CAR Reserve System within a region. As such, it was initially designed to assist workers and businesses in the native forest industry which are directly affected by the outcomes of the Interim Forest Agreements (IFAs) and/or Regional Forest Agreements (RFAs). While much of the program is designed to ameliorate any immediate adjustment impacts on workers and business in the native forest industry the FISAP can also facilitate investment in the production of value added wood products through restructuring assistance. Major restructuring of the Victorian timber industry has already taken place and this will be considered when the Commonwealth and Victoria establish a joint FISAP package.

In addition to the Restructuring Assistance element of the FISAP the three other elements are Forest Industry Labour Adjustment Package, and Business Exit Assistance. Availability of the FISAP in Victoria will be determined in a Memorandum of Understanding (MOU) establishing a joint Commonwealth-State Program. The MOU will establish the respective roles and responsibilities of the two governments in funding and administering the FISAP.

Other industry issues considered, including those raised during consultation

Concerns have been raised about rotation lengths in the Central Highlands resulting in the harvesting of forests at very young ages. While it is true that some forests originating from the 1939 fires have been harvested prior to the nominal 80 year rotation age, most of the forests will be 80 years or more when harvesting occurs in the present rotation. Current forest management is designed so that harvesting of the 1939 regrowth ash forests earlier and then later than 80 years will have the effect of creating a more balanced age distribution in these forests.

Concerns have been raised about increases in thinning operations and the use of fertilisers which are activities more generally associated with plantations rather than native forests. There is no intention to introduce broadscale thinning operations and the use of fertilisers in the Central Highlands given the outcomes of research on alternative silvicultural systems (VicRFASC 1997c).

There has been considerable discussion regarding the sustainable yield levels in the Central Highlands and concerns about their accuracy. The information currently available indicates that legislated sustainable yield levels can be met in each FMA within the Central Highlands, taking into account the proposed CAR Reserve System and other factors. New information on timber resources will be available from the SFRI program prior to the next sustainable yield review due in 2001, at which time any necessary adjustments can be made.

Concerns have been raised about timber harvesting in the Thomson catchment and several other water supply catchments in the region. The Code of Forest Practices for Timber Production and Special Area Plans requires that specific measures be implemented in water supply catchments and this is the case in the Central Highlands. In the Thomson catchment,

timber harvesting is currently restricted to minimise the impact on long term water yields and to meet current sawlog licence commitments. A long term timber and water harvesting strategy for the Thomson catchment to be developed will provide Melbourne Water Corporation with an expected water yield increase from the catchment and NRE with an expected timber yield from the catchment. The next augmentation of Melbourne's water supply is not due until well beyond 2020. Given the reduction in water demand over the last few years and the limitations on timber harvesting in the catchment, it is likely that the next augmentation will be delayed by several years. On this basis the benefits of harvesting both water and timber from this catchment can be achieved. Protection of the range of environmental values occurring in the catchment, such as old growth, a variety of EVCs and threatened flora and fauna, are well catered for in the proposed CAR Reserve System which includes the Baw Baw National Park and an extensive network of reserves in State Forest connected by linear corridors.

4.2 OTHER INDUSTRY ISSUES

Tourism and recreation

The Central Highlands forests contribute significantly to the region's attractiveness as a tourism and recreation destination, providing a wide range of opportunities while conserving the natural environment. The natural attractions and the range of activities available in the region are a major tourism and recreation asset and provide one of the identified strengths with respect to future tourism development potential. The Central Highlands is one of Victoria's most renowned day visitor destinations and boasts a range of opportunities, including:

- some of Australia's most beautiful public gardens;
- unique national parks and forests providing a wide range of tourism and recreation opportunities;
- renowned wineries and award winning winery restaurants;
- the attractions of Healesville Sanctuary and Puffing Billy; and
- the snowfields of Mt Baw Baw, the Baw Baw plateau, Lake Mountain and Mount Donna Buang.

The social assessment process and other information provided by stakeholders identified a range of community and stakeholder issues related to development opportunities for tourism in the region including:

- further tourism development focussing on the key features of the area;
- maintenance of environmental aesthetic values; and
- compatible development of the tourism and timber industries.

The RFA is intended to provide certainty about the future use of forests in the region for the next twenty years and will provide the context in which future planning for tourism and recreation activities can be developed.

Tourism Victoria has recently published the Yarra Valley, Dandenongs and The Ranges Regional Tourism Development Plan (KPMG Management Consulting Pty Ltd 1997). The vision outlined in the Plan is as follows:

By 2001, the Yarra Valley, Dandenongs and The Ranges will be recognised as Melbourne's favourite retreat. The region will consolidate its position as Victoria's premier day trip destination, showcasing Australia's most majestic and internationally acclaimed National

Parks, Mountain Ash forests and hilltop gardens, combined with Victoria's most visited wineries. Higher yield will be generated by increasing overnight getaway experiences and repeat visitation.

The continued professional development and support of tourism as a seven-day a week operation, combined with a diverse range of tourism product, will provide the visitor with an incentive to stay longer and pre-plan visits in order to enjoy the natural features and boutique-style accommodation of the region.

By promoting packaged product and touring routes, the region will reap the benefit of attracting larger group and family bookings and special-interest groups, including greater expenditure and yield.

The cooperation, education and commitment of the region's key tourism stakeholders - local government, local community, tourism operators and general business - will be the driving force towards attaining this vision.

In 1995, the region attracted over 1.5 million daytrips and over 2.2 million visitor nights, resulting in direct expenditure of more than \$96 million in the region. It is projected that by the year 2000/2001, these visitor nights will have increased to over 2.7 million, representing \$112 million in direct expenditure and providing direct employment for more than 960 people in the tourism industry (KPMG Management Consulting Pty Ltd 1997). The Central Highlands CRA report indicates that recreation based activities in the forests of the region contributed at least approximately \$75 million in expenditure and flow-on activity to the regional economy in 1995-96, and around 260 jobs in the region during the same year.

Projected increases in tourism and recreation over the next few years is likely to result in further economic and community benefits across the Central Highlands. In the Central Highlands CRA report, it was noted that growth in visitor numbers to National Parks in the region could be expected to remain at recent rates of around 3.4 per cent per annum, while growth in visitors to State forests could similarly be expected to occur at between 3 per cent to 5 per cent per annum to the end of the decade. Applying these growth rates to the number of visit days in 1995 to National Parks (at 2.9 million) and State forests (at 850,000), the projected number of visit days to forests in the region may be as high as 4.42 million by 2000. A 'visit-day' is defined as a person staying in an area for a day or part day, where each overnight stay counts as an additional visit day.

Based on the projected increase in visit days to both National Parks and State forests in the region, it is estimated that forest recreation may generate \$125 million in direct local expenditure by 2000, based on an average regional expenditure of \$28 per day trip (Tourism Victoria 1996). It has also been suggested that \$50 per visitor day be used as a guide to calculate the stimulus of tourism and recreation on the regional economy through flow on effects (Read, Sturgess and Associates 1995). Based on this figure, it is estimated that recreation in the forests of the region may contribute \$221 million to the regional economy by 2000, where flow on effects from direct recreation expenditure are taken into account.

As highlighted in the vision statement, the Tourism Plan seeks to build on the strengths of the region and sets the framework in which the region can increase the awareness and marketability as 'Melbourne's favourite retreat'. The Central Highlands has a unique advantage in a tourism sense, in that it enjoys a depth and quality of features, attractions and activities across a number of key sectors, all closely aligned with the strategic product strengths in the region. One of these is the natural attractions and the tall wet forests.

As part of a survey conducted for the CRA, fifty-four percent of tourism businesses within the Central Highlands indicated that over 80 per cent of their income is dependent upon visitors to the area, with an estimated 36 per cent of visitors coming to the Central Highlands to specifically visit areas of native forest. This is a conservative estimate, with many visitors to the Central Highlands also visiting native forests to participate in other associated sport and recreation activities occurring within areas of native forest.

Tourism operators indicate that the towns of Healesville, Marysville, Lilydale, Eildon, Yea, Kinglake, Alexandra and Warburton are most likely to attract visitors to the Central Highlands. With the exception of some business expenditure to Melbourne and outer Melbourne, tourism businesses based within these towns have a high probability of sourcing their expenditure from within the town in which they are based, so providing considerable economic benefit to the local economy.

In addition, employees of tourism businesses are likely to live in the same town in which the business is based or towns within the immediate area, with employee expenditure also occurring primarily within the town in which they live or towns within the immediate area.

As tourism businesses are primarily concerned with the presentation of the area to visitors, one of the core issues among tourism and related businesses within the region was the need to provide an interpretive framework about forest industry activities to tourists and visitors to the area. Tourism operators have indicated the need to provide further information on the renewable resource of the Victorian hardwood forests, value adding activities of the timber industry and the tourist attractions the forests offer.

Outdoor Education

In addition to tourism and recreation activities, outdoor education is also an important and established forest based industry in the Central Highlands. Outdoor education activities include bush walking, rafting, rock climbing, horse riding, abseiling, mountain bike riding, skiing, wildlife observation, historic site interpretation and camping. At least eight outdoor education organisations and eight schools have outdoor facilities located in the Central Highlands, with the Alexandra/Eildon area being an important focal point.

The local industry estimates that these organisations together employ approximately 200 people (full time equivalents) and provide opportunities for more than 10 000 people each year to participate in outdoor education activities based on forests in the region. Accordingly, this sector contributes significantly to the local economy. The local industry estimates that the outdoor education industry in the region is currently growing at some 15 to 20 per cent per annum.

The Outdoor Education industry depends upon continued access to conveniently located forests which offer a range of recreational and educational opportunities listed above. In the Central Highlands region the Rubicon Historic Area and its immediate environs is one such location. This Area is used by a number of outdoor education operators located in the Alexandra/Eildon district and provides a combination of close proximity, resources and values which are highly suitable for outdoor education use. Although timber harvesting is permitted in the historic area, it is proposed that timber harvesting be excluded from a portion of the area to ensure protection of significant cultural values, provide opportunities for recreation and tourism and to protect landscape values. The RFA will provide certainty about the protection of and access to forested areas. This will assist the continued growth and development of outdoor education in the region.

Plantations

Plantations can contribute significantly to overall wood supply, particularly as an additional source of pulpwood and small diameter sawlogs for industry. They can also contribute to regional economic development and provide substantial environmental and agricultural productivity benefits to landholders and the broader community if established on cleared land.

Through the social assessment process, stakeholders, interest groups and local communities have identified commercial farm forestry and plantation development as an important issue.. The current plantation estate in the Central Highlands, the potential for its expansion and the policies, programs and initiatives to encourage its expansion are described in the Central Highlands CRA report (VicRFASC 1997a).

The RFA cannot be prescriptive about private plantation development and investment. Actual investment in plantation establishment and development is a commercial decision for companies and individuals that requires more detailed resource and economic assessment.

However, both Governments have developed a range of policies and programs to encourage and facilitate plantation development on cleared land. In total, at least \$10 million of Commonwealth and State funding will be used to support extension, demonstration, education, planning and coordination and practical research and development activities aimed at enhancing the uptake of private forestry in Victoria.

In addition, Commonwealth and Victorian legislation pertaining to plantation development has been reviewed. Victorian forestry rights now provide for agreements between landowners and tree growers that give legal title for trees separate from the land and forestry plantations can be established in some areas without requiring a planning permit. Export controls have been removed from timber sourced from Victorian plantations, and an export licence is no longer required for such material.

Mining

While there is no major mining activity in the region, it is an important source of construction materials and other industrial mineral commodities. There are 41 operating quarries in the region supplying a wide range of industrial, construction and agricultural uses. The Central Highlands is part of a major gold province, and is prospective for a number of deposit types including:

- high potential for slate-belt gold and some construction materials over most of the Central Highlands, with small tracts of high potential for brown coal in the south-east of the region; and
- moderate to high potential for disseminated gold, epithermal gold, nickel-copper, secondary deposits of kaolin, and higher value construction materials.

The geological complexity and diversity of host rocks and structures for potential mineral resources and improving technology make the Central Highlands a potential candidate for future mineral discoveries.

The principal issue in relation to mineral exploration and mining is long-term access to land because of the long-term continual nature of exploration activities. This occurs because of the development of new exploration techniques and changes to the economic viability of exploration and development of particular minerals.

In making decisions on the tenure of the CAR Reserve System, consideration will be given to the impact on land access for exploration and mining activities. The East Gippsland RFA set out the principles for exploration and mining in the reserve system. Such activities will be permitted in certain parts of the reserve system, and only where the identified conservation values are not incompatible with exploration and mining.

Another important issue is the need for management and environmental impact assessment regimes that allow mineral exploration and mining industries to remain internationally competitive while at the same time delivering desired environmental outcomes. The State government requirements for taking this into account are outlined in chapter 10 of the Central Highlands CRA (1997).

5. ECOLOGICALLY SUSTAINABLE FOREST MANAGEMENT

5.1 BACKGROUND

Ecologically Sustainable Forest Management (ESFM) is a key principle of current forest policy and underpins the objectives articulated in the National Forest Policy Statement. ESFM can be defined operationally as the management of forest on all land tenures to maintain the overall capacity of forests to provide goods, protect biodiversity, and protect the full suite of forest values at the regional level.

As part of the Central Highlands Comprehensive Regional Assessment, the Commonwealth and Victoria agreed to undertake an assessment of ESFM in the region. However, following the completion of the Independent Advisory Group's work on ESFM for East Gippsland (VicRFASC 1996a), it was recognised that the information and assessments arising from that work related largely to management systems and processes that are relevant in a Statewide context, not just to East Gippsland. Consequently, the Commonwealth and Victoria agreed to the development of a report of a Statewide assessment of ESFM (VicRFASC 1997b), using as much information as possible from the East Gippsland work as a basis for the Statewide report, and to fill any gaps as required.

5.2 REVIEW

The report was prepared by Commonwealth and Victorian officials using the East Gippsland report wherever possible. The report was then independently reviewed by Professor Ian Ferguson, the Chair of the East Gippsland ESFM Expert Advisory Group in accordance with the following Terms of Reference:

The consultant is required to review and report on a description and assessment of ESFM systems and processes in Victoria in relation to ESFM principles and environmental management criteria with particular attention to:

- 1. new descriptions and assessments of Statewide management systems and processes not covered in the East Gippsland report;*
- 2. whether the assessments of Statewide management systems and processes properly reflect the East Gippsland report; and*
- 3. an overall appraisal of the Statewide report and identification of the Strengths and weaknesses of Victoria's forest management systems and processes.*

References to the Expert Group in this document means the Expert Advisory Panel that prepared the East Gippsland assessment report.

The Statewide ESFM report (VicRFASC 1997b) prepared as part of the Central Highlands CRA documentation contains an overall appraisal by Professor Ferguson. That appraisal concluded that: 'Victoria has all of the major elements in place for appropriate systems and processes for ecologically sustainable forest management. Having said that, however, there is still considerable scope for further improvement... These are not major or exceptional requirements: they are the measures required for continuing improvement in management systems.' Professor Ferguson also pointed out that progress on the implementation of

improvements to the environmental management system will depend on several factors, not the least of which is the resources available for the task.

5.3 RESPONSE

The Commonwealth and Victoria have considered the ESFM assessment and the comments made by the Expert Advisory Group and Professor Ferguson. The discussion below outlines the response of the Commonwealth and Victoria to the ESFM assessment. It is important to note when reading this response that some of the improvements suggested by the Expert Group have already been addressed through commitments made in the East Gippsland RFA, while others are not considered sufficiently significant to justify an adjustment to the systems and processes already in place. Each of the issues (or suggested improvements) in the Statewide ESFM report are briefly described below with a page reference, together with a response from the Commonwealth and Victoria. The issues are grouped according to the five environmental management system components described in the Statewide ESFM report.

Commitment and Policy Framework

Issue: Review of the Victorian Forests Act. (p40)

Response: As a result of commitments given in the National Competition Policy Agreement and through the Victorian Legislative Review Committee, a review of the *Forests Act 1958* is scheduled to be completed by 1999.

Issue: Review of Commonwealth Acts dealing with the environment. (p40)

Response: The Commonwealth will formally initiate a review of Commonwealth environmental law by publishing a discussion paper canvassing possible reforms by the end of 1997.

Issue: The need to address the duplication of processes associated with the Commonwealth Endangered Species Protection Act and the Victorian Flora and Fauna Guarantee Act. (p40)

Response: This issue has been addressed through commitments agreed in the East Gippsland RFA.

Issue: The need to address the duplication in application of Commonwealth and State heritage legislation. (p40)

Response: Avoidance of duplication is being addressed through State-Commonwealth initiatives to standardise criteria and assessment processes. The review of Commonwealth environmental legislation may also address this issue in part.

Planning

Issue: Flexibility with respect to the boundaries of the CAR Reserve System is necessary to accommodate long-term changes. (p42)

Response: This issue is addressed in commitments made in the East Gippsland RFA and will be implemented according to the guidelines in the amendment to the East Gippsland Forest Management Plan. It is envisaged that similar provisions will also apply in future RFAs.

Issue: The need for more thorough treatment of socio-economic factors in forest management plans. (p47)

Response: This requirement would only be considered in the event that significant social and economic implications are likely to arise from a forest management plan. However, this is unlikely given the current RFA processes. Major changes to land use and consequently, potentially significant socio-economic implications have usually been addressed in Land

Conservation Council investigations and these have been accompanied by detailed socio-economic studies.

Issue: The need for formal risk assessment at the commencement of planning processes and at periodic reviews to guide new research. (p47)

Response: A systematic identification and assessment of risk and threatening processes is already undertaken at the commencement of forest planning processes. Those risks that are of particular significance are given greatest attention. For example, the potential risk to a range of forest-dependent species such as large forest owls and the Long-footed Potoroo in East Gippsland was identified early in the planning process and resulted in the development of detailed strategies to ameliorate the potential risk. The process of risk assessment will be addressed at the time of reviews to identify changes in factors affecting risk management.

Issue: The contribution of all forest areas to regional conservation goals needs to be recognised. (p48)

Response: This concept is a fundamental component of the National Forest Reserve Criteria and will be taken into account in the development and design of the CAR Reserve System in each region.

Issue: The need for performance indicators to monitor forest management plan implementation. (p48)

Response: Management plans already include a set of specific actions against which implementation can be assessed. There is also a requirement for an annual report on the implementation of the plans and these will establish timelines for priority actions attached to the approved service agreement.

Issue: The need to include specific targets for soil and water quality in plans. (p48)

Response: There is already a commitment in the East Gippsland RFA to develop indicators of sustainability, including appropriate protection of soil and water values that are relevant to particular regions.

Issue: More detailed strategies are required to identify and protect cultural heritage values. (p48)

Response: This issue is being addressed through the development of cultural heritage guidelines and improved arrangements in relation to consultation with Aboriginal communities. It is envisaged that guidelines and provisions similar to those prepared for the East Gippsland Region will be prepared for the remainder of the State.

Issue: Better links between the range of forest management planning processes within and across regional boundaries and the requirement that significant changes in forest management or condition should provide a trigger to review plans. (p48)

Response: There are already considerable linkages between relevant planning processes which ensure that activities operating across tenures and regions are properly coordinated and planned and the need for major improvement is not considered necessary at this time. Major changes in the planning area, such as wildfire or major changes in land use, have resulted in major reviews in the past and will continue to do so.

Issue: More research is required to strengthen the scientific basis of the Code of Forest Practices, especially soil protection, and monitoring to confirm the effectiveness of prescriptions as a basis for their improvement. Further work is required to develop regional prescriptions that build on the Code to take account of local factors such as soil types and climatic conditions. (p48)

Response: Further research to underpin the Code of Forest Practices (NRE 1996a) is underway including a program to develop ecologically sustainable development indicators for soil and develop and evaluate long term soil monitoring programs. A field guide is being developed to assist staff in dealing with soil erosion hazard and soil permeability and potential for overland flow in accordance with the Code. Further information on research is contained in the Compendium of Forest Research (VicRFASC 1997c) (see review and improvement section below). Work is also progressing such that regional prescriptions for all Forest Management Areas will be completed by the end of 1997.

Issue: Greater explanation of the procedure for estimating sustainable yield is required, as well as the need to make information on the methodology and data used available at an earlier stage. Sustainable yield and sawlog supply levels should be routinely reported and be publicly available. (p49)

Response: Victoria will continue to publish the methodology, including reviews and improvements of methods, and data sources used in estimating sustainable yield at the time of each review and to make this publicly available as soon as possible, recognising that the Minister is required to seek parliamentary approval of sustainable yield levels in each Forest Management Area following the Review. Victoria already provides public reporting of sustainable yield levels through the *Forests Act 1958* (Schedule 3), while sawlog supply levels for Victoria is provided in the Department's annual reports.

Issue: There is a need to set clear and strategic goals for the conservation of biodiversity (or other express purposes of reservation) in parks and reserves that are realistic in relation to available resources and against which the success of management can be judged. This would involve a procedure for monitoring implementation of plans. The contribution of parks to regional conservation should also be considered. (p50)

Response: Recent park plans contain specific implementation actions with respect to biodiversity conservation and other express purposes for reservation against which plan implementation can be monitored. The specified actions are prioritised and must be included in relevant service agreements which identify funding levels associated with their implementation. Each park plan is prepared with the parks regional context in mind, including its contribution to the regional conservation goals and the recreational and tourism opportunities. The Commonwealth and Victoria consider that the new plan approach meets the suggested requirements outlined in the ESFM report. There is a commitment to complete all plans across the State by the end of 1998 and this approach will be adopted in these plans. Park managers, including Parks Victoria, are developing a complementary framework for monitoring the condition of the parks and reserves estate. This framework should be achieved by 1999. The contribution of all land tenures, including parks, is considered in determining the CAR Reserve System for RFAs.

Issue: Wider use should be made of Reference Areas for long-term comparative studies on the impacts of human disturbance in other forested areas. (p50)

Response: The Commonwealth and Victoria support the use of reference areas as baseline research sites as long as that use is consistent with the objectives of reference areas.

Issue: The implementation of processes to protect environmental values on private land require improved coordination and the expertise of local government to implement the controls and to assess values or monitor compliance needs to be improved. (p53)

Response: Better coordination of actions on private land is a stated objective of the new Catchment Management Authorities through the implementation of strategic regional plans and the Native Vegetation Retention controls. The Commonwealth and Victoria agree that local government requires improved expertise in monitoring compliance with permit conditions and in assessing environmental values on private land. A pilot program is

underway to identify accredited experts who can be utilised by local government to address these issues.

Issue: The implementation of consistent approaches to auditing of compliance with the Code of Forest Practices on both public and private land is needed, as is the development of further practical guides and other material describing good forest practice, especially to assist small forest growers. Greater consistency is required in the interpretation of the Native Vegetation Retention Controls for plantation development. (p54)

Response: Victoria is not currently intending to require audits of compliance with the Code of Forest Practices on private land. It should be recognised that forest activity is the only private land use currently subject to a Code of Practice. Both the Commonwealth and Victoria are involved in the development of practical information and guidance relating to plantation establishment on private land. These initiatives will continue and funding arrangements are in place to promote private forest industry development over the next few years. Both the Commonwealth and Victoria consider that the issue of consistency in the interpretation of Native Vegetation Retention Controls will be facilitated by the information being collected as part of the RFA process, such as standard vegetation mapping across the State. Vegetation information should assist in identifying important vegetation types that are in particular need of protection in a regional context. Auditing of compliance with the Code of Forest Practices on public land is dealt with under 'Implementation' below.

Issue: There is a need to strengthen the scientific basis of fire management plans through research in order to better balance protection of life and property with conservation of biodiversity, soil and water. (p58)

Response: The Victorian Code of Fire Practice for Public Land requires that the Department undertake, participate in, or support research programs aimed at improving: firefighter safety; understanding of fire behaviour; prediction of threat of wildfire to life, assets and values; the effects and effectiveness of preparedness actions; and, firefighting methods, including knowledge of their impact on environmental values. The East Gippsland RFA identifies further research on fire management as a high priority and in 1997/98 Victoria will spend more than \$300,000 on fire research which is directly related to strengthening the scientific underpinning of fire management. This research will include impacts on flora, invertebrates, bats, and birds as well as investigating prescribed burning prescriptions for heathlands. This will facilitate the continued improvement of the scientific basis of fire management and protection measures.

Issue: While Action Statements under the Flora and Fauna Guarantee Act have been completed for numerous species, they have not been completed for communities and threatening processes. The Flora and Fauna Guarantee Strategy has yet to be completed. The effectiveness of Action Statements and Recovery Plans needs to be better assessed, based on monitoring and research. (p59)

Response: Victoria is committed to the completion of Action Statements for threatened communities and threatening processes, but it must be recognised that this work needs to be prioritised with other Action Statements required under the Flora and Fauna Guarantee Act. Action Statements are currently in preparation for several communities and threatening processes. Victoria is also committed to the completion of the Flora and Fauna Guarantee Strategy and this is scheduled to occur by the end of 1997. Action Statements already include provisions for monitoring and research and a standardised method of monitoring their implementation is in place. An example of the process for developing and implementing Action Statements, including provision for monitoring, is provided by past and continuing work on Leadbeater's Possum. Victoria has committed in the East Gippsland RFA to a Quality Assurance Program (QAP). This will identify feedback loops between the components of the forest management system.

Issue: There is a need for a systematic approach to the ongoing identification of Aboriginal cultural values, collaboration with Aboriginal communities to facilitate and increase their participation in natural resource management, improved liaison between Aboriginal Affairs Victoria (AAV) and the Department of Natural Resources and Environment in implementing the Aboriginal and Archaeological Relics Act, and improved consultation with local Aboriginal communities in the preparation of Wood Utilisation Plans (WUPs) and the proposed siting of forest operations. (p60)

Response: The assessment work completed as part of the RFA process has provided good information on sites of Aboriginal cultural significance and this information has been included in an existing database maintained by AAV. Victoria has committed in the East Gippsland RFA to manage Aboriginal cultural heritage in accordance with a set of guidelines agreed between the governments and the Aboriginal communities and this should facilitate better communication and participation in natural resource management. The guidelines include a strategy for targeted survey of archaeological sites and a procedure for checking existing site data bases for archaeological values as part of forest planning. Forest Management Plans and Park Management Plans also commit the Department to better communication with local Aboriginal communities and this is already occurring in East Gippsland, particularly in relation to the development of WUPs and other forest operations. Regular meetings of the local communities, Departmental staff and AAV staff have been established.

Issue: Local government planning processes for assessing mining applications is slow and often more adversarial than the Environmental Effects Statement (EES) process, which tends to be more objective and rigorous, providing better opportunities for consideration of scientific evidence and differing views on the relative merits of a proposal. (p63)

Response: While the governments do not necessarily agree with this view, it is noted that major proposals in Victoria usually require an EES before they can proceed. The East Gippsland RFA also requires that an EES must be completed prior to any mining activity in the CAR Reserve System. It is envisaged that similar provisions will also apply in future RFAs.

Issue: The overall effectiveness of pest management is limited by the lack of strategic plans for pest plant and animal control that cover all tenures. Operational planning should provide for ongoing training and updating of field staff and access to support materials. (p64)

Response: Strategic programs for pest plant and animal control covering all land tenures currently exist. For example, strategic rabbit control plans for the release of rabbit calici-virus (RCD) and follow-up control works using other methods; Statewide Good Neighbour Programs which coordinate pest plant and animal control on private property and adjoining public land; pest plant and animal control programs within parks are developed in a regional context and in accordance with parks procedures. In relation to staff training, the Department has a comprehensive and individually based training program for its staff, especially in key areas such as fire protection and suppression, forest and park operations pest, plants and animal control and flora and fauna management. These programs will continue.

Implementation

Issue: The Expert Group was unclear about whether the policy and regulatory functions associated with the management of parks and reserves can be separated between the parks program in the Department and the new Parks Victoria entity. (p67)

Response: The Victorian Government has established Parks Victoria as a service agency for the provision of park management services in Victoria. New legislation which clearly establishes the separate roles and functions of that organisation and the Department is in

preparation. Fire management responsibilities will also be clearly defined in the new legislation.

Issue: Particular attention is needed to identify costs on a regional basis and to separate the costs of commercial and non-commercial activities. A focus on research into ESFM requires an ongoing commitment to funding. (p68)

Response: Departmental budgets are already prepared on a regional basis taking into account regional priorities and needs. Further separation into commercial and non commercial activities or projects is achieved through allocation of funds to the head office business units. The Department commits significant funding to support ongoing research into land management. As part of this the Forests Service has developed a three year rolling program of research (with a budget of \$1.5 million for 1997/98) focussed on ESFM in order to provide stability for projects extending beyond one year.

Issue: Better supervision of forest operations where protection of archaeological or heritage values is important. (p71)

Response: The Commonwealth and Victoria do not consider there is sufficient evidence to warrant this conclusion. Provisions currently exist to audit compliance with the Code of Forest Practices in relation to the protection of cultural values, and audits have not shown any significant problems. Cultural heritage experts within the Department are also involved in the development of WUPs and the establishment of appropriate buffers to protect identified values. The development of Guidelines for the protection of Cultural Heritage values should also assist in overcoming communication issues associated with cultural site protection and help avoid damage to sensitive sites.

Issue: Improvement is needed in the forthcoming review of fire protection plans to ensure that specialist peer review is generally undertaken. (p71)

Response: The Code of Practice for Fire Management on Public Land specifies that when preparing each fire protection plan “the Department must involve its specialists in flora, fauna, parks, forestry, land and water protection and fire management.”

Issue: The lack of auditing processes for other Departmental operations is a weakness which should be addressed. In particular, there is a need to audit the extent of compliance of strategic and operational plans. (p72)

Response: The Commonwealth and Victoria consider that the key activities on public land are already subject to audit processes. An audit of the Code of Fire Practices on Public Land (CNR 1995) is to be introduced. The implementation of strategic and operational plans such as the forest and park plans is already subject to regular review and reporting.

Issue: Up-to-date copies of key documents, for example, management prescriptions should be readily available to staff and other relevant parties. There is a need for a computerised database system to record forest operations in particular, to enable maintenance and updating of important datasets. (p72)

Response: A range of documents, including reports and management plans are readily available to staff and others on the Department’s site on the internet. Additional documentation is located at offices. Much of the information collected as part of the RFA process and the Statewide Forest Resources Inventory (SFRI) is stored in GIS format and can be readily used in future planning and management. The establishment of GIS systems in regional centres which will enable forest records to be stored digitally and be spatially referenced is occurring progressively as resources and data collection permit. The RFA and Forest Management Planning processes provide significant opportunities for this program to be accelerated.

Issue: Staff training, especially in key areas such as fire planning and suppression activities and in the area of cultural heritage protection is important. Long-term training strategies for individual staff and the retention and transmittal of corporate knowledge through ongoing documentation of procedures are very important as available resources decline. (p73)

Response: Both the Commonwealth and Victoria agree that these are important issues and resources are being committed to them to ensure that valuable information and expertise is retained or can be purchased from the private sector. Minimum standards for staff competencies have been established in key areas such as fire management and there is a focus on the preparation of important documents containing critical procedures, such as regional prescriptions. See additional comments in the Planning section above regarding staff training.

Issue: There is a need to promote good forestry practice on private land. (p74)

Response: This issue is already addressed in the Planning section above.

Information, Monitoring and Evaluation

Issue: Data collection, storage and updating of forest information needs to be improved in specific areas. (p78)

Response: These issues are being addressed through the RFA and SFRI processes in particular and further information will be derived from the development and monitoring of sustainability indicators. The issue of socio-economic information has been addressed above. A database of visitor statistics is currently available for parks and priority reserves and it is intended to extend this program and its scope as time and resources permit. Systematic surveys of pest plants and animals are undertaken in priority areas across the State and these provide input to the development of regional control programs. Updating of datasets concerned with Aboriginal and National Estate values will occur as new information becomes available. The Commonwealth and Victoria are both committed to maintaining databases for which they have responsibility. The SFRI and IFPS programs are being progressively implemented across the State and are scheduled for completion by the year 2000. As indicated above, GIS capacity in regional centres is being introduced progressively as resources permit. The Governments have also agreed to the development of a Data Agreement which is intended to address storage and updating of datasets and to maintain them in the corporate NRE library.

Issue: Monitoring of implementation of park plans should commence as soon as possible and should be publicly available, along with actions to address any identified deficiencies. The monitoring of implementation of WUPs is hampered by the lack of an adequate coupe recording and tracking system. (p79)

Response: Implementation of park plans is undertaken through the development of Regional Action Plans which are prepared annually by Parks Victoria and are maintained in Regional offices. These are reviewed annually to ensure that implementation is proceeding in accordance with the specified outcomes. Coupe recording and tracking systems currently vary across the State. The Department is currently pursuing the development of a tool for delineating coupes on a GIS and ensuring consistency across the State, with the intention to introduce it progressively across Victoria from 1998.

Issue: There is a need to develop sustainability indicators in order to assess whether stated forest management objectives are being met. A detailed inventory of the Reference Area system is required, including an assessment of its representativeness, extent of replication, and the degree to which it provides reliable examples of forests unaffected by humans. (p80)

Response: Both the Commonwealth and Victoria are committed to the development and implementation of sustainability indicators for the forested regions of Victoria. This

commitment was made in the East Gippsland RFA. Research into key aspects of the forest management system, including the efficacy of buffers on streams is currently underway. An inventory of the Reference Area system was undertaken by the Land Conservation Council as part of its Statewide Review of Public Land Use (LCC 1988) which was completed in 1988. That report is publicly available and covers the issues raised by the Expert Group.

Issue: There are no formal processes for auditing of compliance with some Departmental policies and plans. Periodic audits are necessary for these. Consideration should be given to increasing the transparency of audits by making the results publicly available, along with measures to address deficiencies, and by increasing the independence of the audit teams. Log grade audits should be published and consideration should be given to independent log grading procedures. Code audits should cover both public and private land. (p82)

Response: The issue of further audits of Departmental processes is dealt with earlier, as has the issue of Code audits on private land. Victoria has committed to publish future reports of internal audits of compliance with the Code of Forest Practices for Timber Production (NRE 1996a) as part of the East Gippsland RFA. Audit teams are drawn from people who are actively involved in the day to day implementation of the Code and are stationed outside of the Region being audited. The Department currently has in place several procedures to ensure the independence and accuracy of log grading, including spot checks of logs in the forest and at sawmills. Other mechanisms are also being considered.

Review and Improvement

Issue: A process for reviewing the forest management components has not been formally developed. A process with appropriate reporting mechanisms, such as the “State of the Forests Report” is required to ensure continuous review and improvement of the management system. Key elements of the system should be subject to more frequent peer review. (p83)

Response: The Commonwealth and Victoria consider that review and improvement mechanisms do exist in some areas of the management system, for example, the Code of Forest Practices for Timber Production which has just been independently reviewed and adjustments made in the light of new information. In addition, the ESFM assessment conducted in Victoria for the RFA process used an environmental management system approach against which to report. Victoria considers that this framework is a useful model for subsequent reporting when used in conjunction with sustainability indicators consistent with the Montreal criteria.

Issue: In relation to research, there is a need for a stronger commitment to the timely completion, appropriate peer review and publication. External peer review of research should be routinely sought and funding should be based on assessment of environmental threats. Formal processes are required to ensure that the most recent relevant research is used to assist in management decisions. A well-defined long term research program is needed. The Expert Group outlined the most critical areas for research and development. (p85)

Response: The basis of this issue is related to comments made by some groups in the community that the Department is not publishing some of its research because it has implications for current management. In fact, most of the documents of concern to community groups have not been published because they were in draft form and had not been reviewed by appropriate experts, both within and outside the Department. External peer review of research in the Department is regularly undertaken in order to ensure that research methodology and interpretation of results is appropriate and scientifically based. It would be very difficult for the Department to ignore published research when making management decisions, especially if the Department had conducted the research. The Forests Service within the Department develops a three-year rolling plan of research matched by appropriate funding in order to provide certainty for projects beyond the current financial year. The

research program is developed with input from a range of experts and is geared toward the improvement of forest management, consistent with ESFM goals. The Commonwealth and Victorian Governments are committed to research in key areas as part of the East Gippsland RFA and the next three-year rolling research plan will reflect those commitments. The areas of research are also consistent with those outlined by the Expert Group. The details of the research plan is publicly available and is accessible on the Department's internet site.

REFERENCES

- ABARE (1996). *Australian Forestry Statistics, March Quarter 1996*, Canberra.
- AHC and CNR (1994). *National Estate Values in the Central Highlands of Victoria*. Draft Project Report. June 1994. Department of Conservation and Natural Resources, Victoria, East Melbourne.
- CNR (1995d). *Code of Practice for Fire Management on Public Land*. Department of Conservation and Natural Resources, Victoria.
- Cock, G.F. (1997). Opportunities in the furnishing industry. In proceedings of Gippsland Timber - 21st Century: sustaining a high value timber industry into the 21st Century. 22-23 May 1997. Gippsland Development Ltd.
- Commonwealth of Australia (1992). *National Forests Policy Statement: A New Focus for Australia's Forests*. Advance Press, Perth.
- DPIE (1996). *AusIndustry-Agribusiness Program, Annual Report 1995-96*, Commonwealth Department of Primary Industries and Energy Canberra, (and previous issues).
- Gooding, G. (1997). Market perspective: Outlook for hardwood products, and marketing directions for domestic processors - opportunities and challenges. in proceedings of Gippsland Timber - 21st Century: Sustaining a high value timber industry into the 21st Century. 22-23 May 1997. Gippsland Development Ltd.
- Hansard, A., Dann, T., Stephens, M. and Clark, J. (1996). An economic model for comprehensive regional forest assessments: a case study – some issues and considerations, ABARE conference paper 96.13, presented at the 40th Annual Conference of the Australian Agricultural and Resource Economics Society, Melbourne, 13–15 February.
- JANIS (1997). *Nationally Agreed Criteria for the Establishment of a Comprehensive, Adequate and Representative Reserve System for Forests in Australia*. Joint ANZECC/MCFFA National Forest Policy Statement Implementation Sub-committee, Canberra.
- KPMG Management Consulting Pty Ltd (1997). Yarra Valley, Dandenongs and the Ranges - Regional Tourism Development Plan.
- LCC (1988). *Statewide assessment of public land use in Victoria, Australia*. Land Conservation Council, Victoria.
- LCC (1994). *Final Recommendations Melbourne Area, District 2 Review*. Land Conservation Council, Victoria.
- Network for Excellence in the Hardwood Timber Industry (1996). *Interim Business Plan 1996-98, East Gippsland*, January 1996.
- NRE (1996a). *Code of Forest Practices for Timber Production (Rev. No. 2)*. Department of Natural Resources and Environment, Victoria.
- NRE (1996b). *Proposed Forest Management Plan for the Central Highlands*. Department of Natural Resources and Environment, Victoria.
- Read, Sturgess and Associates (1995). *Recreational Use of Victoria's State forest*. Unpublished report for the Department of Conservation and Natural Resources, Victoria.
- Tourism Vic (1996). *Victorian Regional Travel and Tourism Survey 1995*, Melbourne.

- Wareing, K (1997). *Adding Value to Sawntimber from the Central Highlands: Recent Achievements and Future Opportunities*, Report prepared for the Victorian Association of Forest Industries and the National Association of Forest Industries, Melbourne.
- VicRFASC (1996a). *Comprehensive Regional Assessment East Gippsland: Independent Advisory Group Report on Ecologically Sustainable Forest Management, Systems and Processes*. Commonwealth and Victorian Regional Forest Agreement Steering Committee, Canberra.
- VicRFASC (1996b). *Comprehensive Regional Assessment: Wilderness Assessment of the Eastern Victorian Forests*. Commonwealth and Victorian Regional Forest Agreement Steering Committee, Canberra.
- VicRFASC (1996c). *Regional Forest Agreement East Gippsland: Towards the Regional Forest Agreement – A Paper to Assist Public Consultation*, Victorian Regional Forest Agreement Steering Committee, Canberra.
- VicRFASC (1997a). *Comprehensive Regional Assessment: Central Highlands Comprehensive Regional Assessment Report*. Commonwealth and Victorian Regional Forest Agreement Steering Committee.
- VicRFASC (1997b). *Comprehensive Regional Assessment: Victorian Statewide Assessment of Ecologically Sustainable Forest Management*. Commonwealth and Victorian Regional Forest Agreement Steering Committee.
- VicRFASC (1997c). *Compendium of Victorian Forest Research, Research in Progress, Published and Unpublished Works with Particular Reference to the Central Highlands Regional Forest Agreement Region*. Commonwealth and Victorian Regional Forest Agreement Steering Committee.
- VicRFASC (1997d). *Comprehensive Regional Assessment Central Highlands: Mineral Assessment*. Commonwealth and Victorian Regional Forest Agreement Steering Committee.
- VicRFASC (1997e). *Comprehensive Regional Assessment Central Highlands: Social Assessment*. Commonwealth and Victorian Regional Forest Agreement Steering Committee.
- VicRFASC (1997f). *Comprehensive Regional Assessment Central Highlands: Biodiversity Assessment*. Commonwealth and Victorian Regional Forest Agreement Steering Committee.
- Victoria Government (1986). *Victoria Timber Industry Strategy*, Government Printer Melbourne.

APPENDIX A

ISSUES RAISED DURING CONSULTATION

A range of consultative opportunities has been undertaken to obtain community views and aspirations that need to be considered in developing a Regional Forest Agreement for the Central Highlands. Public meetings were held in Healesville on 29 July and 19 August, in Alexandra on 30 July and 20 August, and in Warragul on 31 July and 21 August 1997. In addition, a meeting of State stakeholder groups was held in Melbourne on 29 August 1997. Other meetings with various interest groups, both in Melbourne and the Central Highlands, have taken place. A number of people and organisations also provided written comments and information. The issues raised through these processes are outlined below and are broadly classified into those related to the RFA process, the comprehensive, adequate and representative reserve system, ecologically sustainable forest management, certainty and development for forest industries, and community issues. Some issues covered more than one category.

A number of the issues, though important in a broader regional context, are not directly related to the RFA process or outcomes. Therefore there is limited ability to address them within the RFA. However the RFA process has highlighted some of these issues and provided information that could be used to support action to address them, including potential access to programs identified in Appendix C.

Some of the issues were raised by individuals, while others were put by representatives of various groups. As such it is not possible for the information provided below to gauge the significance of each issue. The comments and issues raised are those of individuals or groups and do not necessarily reflect the views of the Commonwealth or Victorian governments. Members of the RFA team also provided detailed responses to most of the issues raised. However these have not been included in the following section.

Many of the issues were also raised during workshops, meetings and discussions conducted as part of the Social Assessment work undertaken prior to the development of the CRA report.

RFA PROCESS

- *A criticism of the RFA process is that there is no opportunity to share values in a safe environment where it is possible to appreciate other people's values. Whilst polarised, people will continue to have a fight and debate. Industry and conservation should share values rather than continue polarisation. Linear forms of communication do not work. Need face to face communication and for more people in industry and conservation to get together for discussion.*
- *The process for providing comments ie. through the public meetings or through other processes.*
- *Alternative approaches are needed to enable public input into the RFA eg. officials need to visit people to discuss proposals.*
- *All interest groups have an opportunity to have a say in how forests are managed, through the Central Highlands forest management plan and RFA.*

- *Dissemination of information for public education about the RFA process, such as the RFA brochure and structural adjustment package, contain a negative view. The brochure should be amended for subsequent RFAs.*
- *Information was sought on opportunities for public input into the development of sustainability indicators.*
- *Projected timelines for completion of the Central Highlands RFA.*
- *Reports should also be available at the Woori Yallock office.*
- *Copies of the report are not yet available in local libraries.*
- *Government need to improve publicity about the RFA by targeting Melbourne and local governments.*
- *Availability of technical reports.*
- *An explanation was sought as to the mechanism by which amendments could be made to the RFA once it is signed.*
- *The frequency of RFA reviews.*
- *Flexibility of RFA outcomes in the event that a new threatened species is discovered.*
- *Given the RFA process relies on the Comprehensive Regional Assessment (CRA) questions were raised about the way in which the RFA will deal with uncertainty and lack of knowledge on forests. There is a need for inclusion of margins of error to provide some flexibility in the future.*
- *Clarification was sought as to when the Central Highlands Forest Management Plan will be finalised and how this timing related to the finalisation of the RFA.*
- *Communities have already been through this process. Duplication with the forest management plan processes needs to be avoided.*
- *Information was sought as to how the social assessment data will be used in developing the RFA.*
- *Mixed forest is not listed in the CRA or mapped.*
- *Opportunities to challenge data and information/assumptions in the CRA reports.*
- *Query on how private land fits into the RFA process.*
- *Questions seeking clarification of apparent inconsistencies in the CRA report were raised.*
- *Questions were raised about the role of the Australian Heritage Commission and future plans for listing areas on the register of national estate.*
- *Questions were raised as to the representativeness of data collected in the social assessment process.*
- *The definition of old growth and the methodology used to map old growth. There were differing views about what old growth is including the view that some areas should be old growth even though they are technically not old growth.*
- *The impact of the RFA on State legislation such as the Wood Pulp Agreement.*
- *The quantity of information on the timber resources compared with wilderness is unbalanced.*

- *It was noted that in regard to the random telephone survey, the overall Central Highlands sample showed 90.7 per cent of those surveyed did not have family members employed in the timber industry as distinct from the responses across the five regional sectors.*
- *There is lack of regional planning and a lack of co-ordination between governments on planning the use of forests.*
- *Victoria has had a long history of planning which other States have not. Victorians should be proud of that. Those involved in the forest management plan should feel confident to go into this RFA process. Treat the Commonwealth involvement as positive and different to those States which have not had the detailed planning undertaken in Victoria.*

COMPREHENSIVE, ADEQUATE AND REPRESENTATIVE RESERVE SYSTEM

- *Development of forest use options should be the responsibility of regional NRE staff.*
- *An assessment of the existing reserve system is needed to identify what it is protecting.*
- *Clarification was sought as to how much land is already in the CAR Reserve System.*
- *Consideration of logging SPZs after fire.*
- *Establishing viable links between existing dedicated reserves.*
- *For aesthetic reasons, long distance walking tracks need to be buffered from logging operations.*
- *Identification of the mechanisms in the RFA to deal with the issue where if any forest areas are reserved for threatened species those areas are replaced. Process for exchange of areas, eg adjusting after wildfire, doesn't appear to have been written into the report.*
- *Potential loss of SPZs for Leadbeater's possums following a fire event. The need for better definition of IA habitat so that it remains as SPZ following a fire event.*
- *Protection of Baw Baw frog habitat.*
- *Regarding the target for 15 per cent of pre-1750 vegetation types, where it exceeds 15 per cent, consideration should be given to returning areas to timber production.*
- *Suggestions to establish links between Baw Baw National Park and Yarra Ranges National Park, Cathedral Ranges National Park and Yarra Ranges National Park by upgrading SPZs to dedicated reserves.*
- *The CRA report was reviewed to find where people values were given the same level of protection as other values. The only reference was on pages 228, 224 and 227 of the report. Questions were raised about the provisions in place to make additional areas of forest available for timber production if other areas have been removed. It should be given equal consideration as with other issues.*
- *The purpose of SPZs and any restrictions on types of use is not understood.*
- *The size and shape of SPZ - they should be viable and be large enough to link existing dedicated reserves.*
- *Upgrading SPZ 309/09 to a dedicated reserve.*
- *The Toorongo Plateau is important for Nothofagus.*

ECOLOGICALLY SUSTAINABLE FOREST MANAGEMENT AND FOREST MANAGEMENT PLANNING

- *Include in the CRA trend lines of employment and capital investment, and trend lines of additions to reserves.*
- *Disappointed in the language in the Proposed Central Highland Forest Management Plan recreation use chapter; simplistic, dictatorial about what would happen. No communication with trail riders. Lament the approach taken in the forest management plan.*
- *Clarification was sought on how much old growth is harvested each year. If the timber industry is sustainable, there should be no need to go into old growth forests each year.*
- *Concern about an agreement for 20 years when the Central Highlands region is one of the worst areas for wildfire. Questions were raised about the way in which major impacts on the forest, such as wildfire are dealt with in the RFA.*
- *Doubts were expressed about the accuracy of the sustainable yield calculations and that contingencies have not been built in. There is a perception about overcutting of the resource.*
- *Insufficient information on the effects of fire on resource availability especially supplementing lost resource.*
- *Need for improvements in coupe selection and design to keep logging efficient.*
- *Questions were raised about the thoroughness of the examination of catchment management issues including environmental flows in the Thomson and Latrobe systems.*
- *Talking about active management for Leadbeater's Possum out of reserves but not in reserves. Concern about spending so much on the area (one third) outside reserves where you can harvest timber and not on the two thirds of the area where you cannot.*
- *The need to improve monitoring of Leadbeater's Possum management to ensure compliance with recovery plans.*
- *There is a need for a network to be developed between resource users to disseminate information on forest use.*
- *Management of roads, weeds and deer hunting.*
- *Exclusion of uses in some national parks.*
- *Participation in wood utilisation planning,*
- *Salvage logging following wildfire should be allowed in National parks.*

DEVELOPMENT FOR FOREST INDUSTRIES AND CERTAINTY

- *Concern about the amount of forest used for woodchips and that it does not appear to be discussed in any detail in the CRA.*
- *Acknowledgment of the important interaction between logging and tourism.*
- *Additional jobs could be created through greater value adding.*
- *AMCOR invested \$330 million last year but it is not mentioned in the CRA.*

- *Clarification was sought on the current situation with respect to the Wood and Paper Industry Strategy and the Wood and Paper Industry Council.*
- *Concern was raised that after allowing for the biodiversity, old growth and wilderness criteria there is nothing left for timber harvesting.*
- *Economically, the timber industry is not portrayed correctly. The CRA report under values the timber industry in terms of its overall contribution to the economy and communities and the report fails to describe the major advances that the industry has taken into value-adding over the last 10 years.*
- *Finalise processes so the timber industry can get on with business.*
- *Follow up to RFAs is required to educate the public about outcomes, rather than letters in the press. This also applies to Central Highlands. Ministers and senior officials have to sell the process and do more for marketing timber products (the contrary view that governments have no role in marketing was also put). This stems from a perception that this did not happen in East Gippsland.*
- *Interaction between logging and other use including the need for access to areas dedicated for outdoor education; one view was that some uses are complementary whereas the other view was that other uses are in conflict.*
- *Logs are being transported to value adding mills outside the region so local mills are missing out.*
- *Market timber from the area as the world's best standard for conservation as the Central Highlands forests have undergone RFA assessment and meet criteria. Lift sights higher, marketing/monitoring with international views rather than fiddling around edges for 2 per cent.*
- *Need to act on current industry development opportunities.*
- *Plantations can reduce requirement to source wood from native forests.*
- *Need to expand plantations on cleared private land.*
- *Opportunities for pre and post harvesting activities such as fern tree collection and fire wood cutting.*
- *Recreational use by people from Melbourne is important due to close proximity.*
- *Social values and opportunity costs. Industry development in the East Gippsland report had no vision. Resource security is not the only thing industry and employees are looking at. Industry need to have a vision focused on value adding.*
- *Some wood allocation decisions have resulted in a drop in quality of resource and this is detrimental to investment.*
- *Some information in tourism and recreation section of the CRA report is not correct.*
- *Support for 15 year licensing arrangements in the timber industry.*
- *The quality of the RFA and the Forest Management Plan is the basis for product certification of forest management processes.*
- *There is need for a centralised processing plant.*
- *Tourism is more important than the timber industry. Can't have both.*
- *Using the Ash resource as pulp to meet the legislative agreement with AMCOR, creates concern that Victoria may not be able to achieve forests that produce good quality sawlogs in the future.*

- *Clarification was sought as to whether AMCOR closing a plant at Broadford would impact on the Central Highlands RFA.*
- *Need to improve access to National Parks for the tourism industry.*
- *The timber industry pays for the use of the South Face Road whereas the tourism industry does not.*
- *\$42 million go in tourism, \$230 million timber. Tourism has 20 years to catch up to timber industry. Rural communities need both.*

OTHER ISSUES

- *Broader issue of overall community direction and goals.*
- *Concern that the media isn't concerned about the other side (timber industry). Everyone concentrates on the CAR Reserve System and ESFM but only the industry is concerned about the industry. An imbalance, decisions made by persons outside of the industry.*
- *In Parks the tourism industry is paying a levy but is not getting value for money as parks are closing some tracks.*
- *Lack of State funding for the management of roads and provision of information on forest management practices.*
- *Must be a way of supporting the contractors affected by the East Gippsland protests issue.*
- *RFA process acts as an impetus for other processes of the West Gippsland Catchment Management Authority. Seeking broad guidance on use and management of areas eg roadsides.*
- *The lack of a fire or timber industry roading fund means that bridges and tracks are not being maintained.*
- *Bring on the debate so that people understand the East Gippsland result.*
- *Clarification was sought as to whether conservation groups could push for Goolengook to be set-aside from logging until the 5 year review of the East Gippsland RFA.*
- *Certainty regarding RFA outcomes was raised in relation to the protest action in East Gippsland and any impact of RFA outcomes. The governments were urged to pursue RFA legislation as resource security is very important.*

APPENDIX B

SUMMARY OF CRITERIA FOR THE COMPREHENSIVE, ADEQUATE AND REPRESENTATIVE RESERVE SYSTEM

The following section is derived from the 'Nationally Agreed Criteria for the Establishment of a Comprehensive, Adequate and Representative Reserve System for Forests in Australia. A Report by the Joint ANZECC/MCFFA National Forest Policy Statement Implementation Sub-committee.' (JANIS 1997)

This summary is intended only as a guide to the reserve criteria. Readers are referred to the published report which provides the full context for the information outlined below. The report is available through the Environmental Resources Information Network on their World Wide Server. Contact: <http://www.erin.gov.au/land/forests/rfa.html>

PRINCIPLES

Comprehensiveness

Comprehensiveness - includes the full range of forest communities recognised by an agreed national scientific classification at appropriate hierarchical levels (NFPS 1992).

Adequacy

Adequacy - the maintenance of ecological viability and integrity of populations, species and communities (NFPS 1992).

Representativeness

Representativeness - those sample areas of the forest that are selected for inclusion in reserves should reasonably reflect the biotic diversity of the communities (NFPS 1992).

CRITERIA FOR THE CAR RESERVE SYSTEM FOR FORESTS

Biodiversity Criteria

- (1) As a general criterion, 15 per cent of the pre-1750 distribution of each forest ecosystem should be protected in the CAR Reserve System with flexibility considerations applied according to regional circumstances, and recognising that as far as possible and practicable, the proportion of dedicated reserves should be maximised.
- (2) Where forest ecosystems are recognised as vulnerable, then at least 60 per cent of their remaining extent should be reserved. A vulnerable ecosystem is one which is:
 - i) approaching a reduction in areal extent of 70 per cent within a bioregional context and which remains subject to threatening processes; or
 - ii) not depleted but subject to continuing and significant threatening processes which may reduce its extent.
- (3) All remaining occurrences of rare and endangered forest ecosystems should be reserved or protected by other means as far as is practicable.

- (4) Reserved areas should be replicated across the geographic range of the forest ecosystem to decrease the likelihood that chance events such as wildfire or disease will cause the forest ecosystem to decline.
- (5) The reserve system should seek to maximise the area of high quality habitat for all known elements of biodiversity wherever practicable, but with particular reference to:
 - the special needs of rare, vulnerable or endangered species;
 - special groups of organisms, for example species with complex habitat requirements, or migratory or mobile species;
 - areas of high species diversity, natural refugia for flora and fauna, and centres of endemism; and
 - those species whose distributions and habitat requirements are not well correlated with any particular forest ecosystem.
- (6) Reserves should be large enough to sustain the viability, quality and integrity of populations.
- (7) To ensure representativeness, the reserve system should, as far as possible, sample the full range of biological variation within each forest ecosystem, by sampling the range of environmental variation typical of its geographic range and sampling its range of successional stages.

Forest ecosystems are often distributed across a variety of physical environments and their species composition can vary along environmental gradients between the micro-environments within the ecosystem.

This approach will maximise the likelihood that the samples included in the reserve system will protect the full range of genetic variability and successional stages associated with each species, and particularly those species with restricted or disjunct populations.
- (8) In fragmented landscapes, remnants that contribute to sampling the full range of biodiversity are vital parts of a forest reserve system. The areas should be identified and protected as part of the development of integrated regional conservation strategies

Old-growth Forest Criteria

- (1) Where old-growth forest is rare or depleted (generally less than 10 per cent of the extant distribution) within a forest ecosystem, all viable examples should be protected, wherever possible. In practice, this would mean that most of the rare or depleted old-growth forest would be protected.
- (2) For other forest ecosystems, 60 per cent of the old-growth forest identified at the time of assessment would be protected, consistent with a flexible approach where appropriate, increasing to the levels of protection necessary to achieve the following objectives:
 - the representation of old-growth forest across the geographic range of the forest ecosystem;
 - the protection of high quality habitat for species identified under the biodiversity criterion;

- appropriate reserve design;
- protection of the largest and least fragmented areas of old-growth;
- specific community needs for recreation and tourism.

Wilderness Criteria

Ninety percent, or more if practicable, of the area of high quality wilderness that meets minimum area requirements should be protected in reserves.

RESERVE DESIGN AND MANAGEMENT

The way in which a reserve is designed can influence not only the protection of conservation values, but the efficiency and effectiveness of subsequent management for conservation within the reserve. The criteria which should influence reserve design include:

- Boundaries should be set in a landscape context with strong ecological integrity, such as catchments.
- Large reserved areas are preferable to small reserved areas, though a range of reserve sizes may be appropriate to adequately sample conservation values.
- Boundary-area ratios should be minimised and linear reserves should be avoided where possible except for riverine systems and corridors identified as having significant value for nature conservation.
- Reserves should be developed across the major environmental gradients if feasible, but only if these gradients incorporate key conservation attributes which should be incorporated in the CAR system.
- Each reserve should contribute to satisfying as many reserve criteria as possible.
- Reserve design should aim to minimise the impact of threatening processes, particularly from adjoining areas.
- Reserve should be linked through a variety of mechanisms, wherever practicable, across the landscape.

APPENDIX C

COMMONWEALTH AND STATE RURAL INITIATIVE PROGRAMS

Details provided in this section may be subject to change following the release of *Agriculture -Advancing Australia* by the Commonwealth Government in September 1997.

• Program	Program Description	Res
<p>Health:</p> <ul style="list-style-type: none"> • Travel Assistance • Multi-purpose (Health & Welfare) Centres Initiative 	<p>Commonwealth funding provide for allocation by the State Government to assist country patients who must travel to receive medical treatment.</p> <p>Financial assistance provided by Commonwealth Government funding for community based organisations and local government to provide rural and remote areas with access to health and welfare services.</p>	<p>Stat Dep Farr</p>
<p>Education and Training:</p> <ul style="list-style-type: none"> • Assistance for Isolated Children Scheme • Apprenticeships <p>Traineeships available in Rural Victoria:</p> <ul style="list-style-type: none"> • National Rural Skills Traineeship • National Amenity Horticultural Traineeship • National Pig Industry Traineeship • Dairy AVTS - Pilot • Production Horticulture Vegetable Growers AVTS - Pilot • Nursery AVTS - Pilot • Jobstart wage subsidies • Training for Aboriginals and Torres Strait Islanders (TAP) <p>Training for Employment:</p> <ul style="list-style-type: none"> • Training for mployment Program • Advanced English for Migrants Program • bridging courses for the overseas trained 	<p>Assistance for families whose children do not have reasonable daily access to an appropriate government school in the year they are qualified to enrol in due to geographic isolation, a medical condition, a disability, or special education requirements.</p> <p>Commonwealth government incentives are offered to encourage employers to engage new apprentices and maintain them in training until formal qualifications are obtained. Jobstart wage subsidies are also available.</p> <p>Traineeships are available as incentives to employers to take on trainees. Those specific to rural Victoria are listed here. Jobstart wage subsidies are also available where applicable, and also access to a training wage. Additional fares assistance, a living away from home allowance are available to eligible persons. Additional wage assistance is also available to employers to employ women in non-traditional traineeships.</p> <p>Assistance is provided in the form of skills development, formal training and employment strategies, and transition assistance. Skills development provides employment based training. Formal training enables clients with the skills needed for ongoing employment or participation in further training. Employment strategies provides funding to develop recruitment and career development strategies within Commonwealth, State and local government agencies, government enterprises, employers of regional significance and employer representative bodies. Transition assistance is provided to overcome obstacles to participation and employment clients face.</p> <p>This program assists job seekers to gain employment through the provision or enhancement of vocational skills linked to specific employment opportunities in the labour market.</p>	<p>Con Emp Con Emp Rur: Aus Dep Emp Trai Con Emp Con Emp</p>

• Program	Program Description	Res
Community Development/Training: <ul style="list-style-type: none"> • Aboriginal & Torres Strait Islander Community Development Employment Projects 	The Projects enable members of ATSI communities to exchange unemployment benefits for opportunities to undertake work and training in activities managed by local indigenous community organisations. There are projects in the rural sector, including agricultural and land based activities.	Abc Islai
Community Assistance: <ul style="list-style-type: none"> • Rural Communities Program 	This Program aims to assist rural and remote communities to develop the social infrastructure in their community by funding projects to increase community resources available to meet their needs. Communities are encouraged to plan, organise and deliver their own projects.	Dep Indu
Labour Market Assistance: <ul style="list-style-type: none"> • Forest Industry Labour Adjustment Package 	This Package provides labour market assistance to self employed workers and businesses who are involved in the native forest industry, and are directly affected by the Deferred Forest Areas or the Regional Forest Agreement Process. There are eligibility criteria. Assistance available includes training, wage subsidies for new employers, and relocation costs to take up new employment or training.	Con Emp
Assistance for people in business: <ul style="list-style-type: none"> • AusIndustry Enterprise Development programs • National Skills Shortage Program • Community Economic Initiatives Scheme • Business Funding Scheme 	<p>In these programs assistance is provided to firms to improve their international competitiveness in the form of information, advice, and referral.</p> <p>This program provides short-term skills training to employed and unemployed persons with the necessary qualifications in areas where there are identified shortages. Specific to rural industry, a national and state Rural Industry Training Committee is involved in the training issues relevant to primary production.</p> <p>This is an ATSI Business Development Program for the promotion of community-based enterprise development. Grants are available to Aboriginal and Torres Strait Islander organisations for the establishment or expansion of income-generating ventures.</p> <p>This scheme provides concessional finance in the form of loans, loan guarantees and grants (corporations only) to Aboriginal and Torres Strait Islander individuals and corporations to acquire and/or develop commercially successful business enterprises.</p>	Aus Rur: Aus on r com Abc Islai Abc Islai

Appendix D East Gippsland Regional Forest Agreement

• Program	Program Description	Res
<p>Assistance for Primary Producers:</p> <ul style="list-style-type: none"> • Rural Counselling program • Rural Adjustment Scheme • Drought Relief Payment • Rural Research & Development 	<p>Counsellors are employed under the program to provide free and confidential financial, and personal advice to farming families in a number of rural areas.</p> <p>In this scheme, interest subsidies on commercial finance, grants for farmer training, farm planning and appraisal, re-establishment grant (up to \$45,000), and special interest subsidies are available to farmers. Its aim is to assist farmers who plan productivity improvement, and have long-term prospects of profitability. This scheme also has a regional focus.</p> <p>Drought Relief Payments are available to farmers experiencing extreme difficulty in meeting family and personal living expenses as a result of drought.</p> <p>Commonwealth government and rural industries fund a number of research and development corporations and councils in a range of primary industry production areas. In addition, the following organisations participate in rural research and development in various capacities: CSIRO, ABARE, Bureau of Resource Sciences, Australian Geological Survey Organisation, Australian Plague Locust Commission, National Registration Authority, Rural Research Database.</p>	<p>Rur</p> <p>Stat Autl</p> <p>Dep Sec</p> <p>Rel Dev or C</p> <p>Res</p>
<p>Natural Resources:</p> <ul style="list-style-type: none"> • Landcare 	<p>This is a Commonwealth Government Program which supports community initiatives to solve natural resource management and nature conservation problems. Funding is provided to local government and community groups for a range of activities, including awareness and training, planning, on ground actions, and monitoring.</p>	<p>Dep Indu Res</p>
<p>Tourism:</p> <ul style="list-style-type: none"> • Commonwealth Tourism Programs 	<p>The program will fund initiatives which raise the domestic and international tourism potential throughout rural and regional Australia. It is aimed at creating jobs and spreading the economic benefits to these areas.</p>	<p>Dep Scie</p>
<p>Partnership for Growth:</p>	<p>The Victorian government has committed \$50 million to an economic development program for the strengthening of rural communities in Victoria, specifically to attract new industry and investment, strengthen local businesses and fund development projects and infrastructure, and enhance community assets. Under this program, grants, funds and assistance are available to business and communities.</p>	<p>Vic Stat Dev</p>

APPENDIX D

EAST GIPPSLAND REGIONAL FOREST AGREEMENT BETWEEN THE COMMONWEALTH AND VICTORIAN GOVERNMENTS

The following section contains the East Gippsland RFA which was signed by the Prime Minister and the Premier on 3 February 1997. It has been attached to assist public comment on the development of the Central Highlands RFA. The Attachments to the East Gippsland RFA can be obtained from Tom Aldred or Ian Miles (contact details provided in the Foreword). The Central Highlands RFA will be developed following consideration of public comment on this Report and negotiations between the Victorian and Commonwealth governments.

The Central Highlands RFA will follow a similar format to the East Gippsland RFA, although it will contain detailed Attachments specific to the Central Highlands, which address the components of the RFA as discussed in Chapters 3-5 of this report.

INTRODUCTION

Purpose of Agreement

1. This Regional Forest Agreement (RFA) establishes the framework for the management of the forests of East Gippsland. Parties are committed to ensuring the Agreement is durable and that the obligations and commitments that it contains are delivered to ensure effective conservation, forest management and forest industry outcomes.
2. This Agreement is a Regional Forest Agreement for the purposes of the relevant regulations under the *Export Control Act 1982*.

Definition of Region

3. The area covered by this Agreement is the East Gippsland Region as shown in Map 1 at Attachment 1.

Duration of Agreement

4. This Agreement takes effect upon signing by both parties and will remain in force for twenty years.
5. The process for extending the Agreement for a further period will be determined jointly by the parties as part of the third five yearly review.

Basis of Agreement ¾ National Forest Policy Statement

6. Parties confirm their commitment to the goals, objectives and implementation of the *National Forest Policy Statement (NFPS)* by:
 - developing and implementing Ecologically Sustainable Forest Management (ESFM);
 - establishing a Comprehensive, Adequate and Representative (CAR) reserve system;
 - and

- facilitating the development of an internationally competitive wood production and wood products industry.

FUNCTIONING OF THE AGREEMENT

Relationship to the Interim Forest Agreement

7. This Agreement replaces the Interim Forest Agreement, signed by the Commonwealth and Victorian governments on 27 January 1996, in relation to the East Gippsland Region.

Relationship between this Agreement and the Attachments

8. The Attachments will be treated as part of this Agreement.

Relationship to Statutory Obligations

9. This Agreement and its provisions are not intended to give rise to legally enforceable rights or obligations between the parties. This Agreement cannot impose on either party or a third party any obligation that is inconsistent with Australia's international obligations, or a law of the Commonwealth or of Victoria.
10. Neither party will seek to use existing or future legislation to undermine or impede this Agreement.
11. The Commonwealth, in signing the Agreement, confirms that its obligations under the *Australian Heritage Commission Act 1975* have been met.
12. Parties will manage the National Estate in accordance with the provisions of this Agreement as detailed in Attachment 2.
13. The Commonwealth, in signing the Agreement, confirms that its obligations under the *Environment Protection (Impact of Proposals) Act 1974* have been met. The Commonwealth also confirms that, under the administrative procedures of the Act, any activities covered by the Agreement, including the 5 yearly review and minor amendments to the Agreement, will not trigger further environmental impact assessment.
14. The Commonwealth, in signing the Agreement, confirms that its obligations under the *Endangered Species Protection Act 1992* have been met.
15. The Commonwealth notes that its obligations to promote endangered species protection will involve ongoing cooperative work with Victorian agencies concerning East Gippsland.
16. Parties agree to actively investigate, and participate in, World Heritage assessment of the Australia-wide Eucalypt theme, including any potential contribution from East Gippsland.
17. Parties note that in order to progress work and then proceed to World Heritage nomination, the agreement of all relevant governments will be required.

18. Parties agree that any potential nomination for World Heritage involving areas in East Gippsland could be achieved from within the CAR Reserve System.
19. Parties note that current Commonwealth export licence arrangements provide that, after 31 December 1999, exports of hardwood woodchips will only be permitted from areas covered by an RFA.
20. The Commonwealth will, subject to the passage of amendments to the relevant regulations under the *Export Controls Act 1982*, ensure that no controls under that Act will apply to the export of hardwood woodchips or unprocessed wood sourced from the East Gippsland region while this Agreement is in place. The Commonwealth will seek passage of the relevant amendments by 30 June 1997. In the interim, licences will be issued to applicants seeking to export hardwood woodchips or unprocessed wood derived from areas within the East Gippsland region. The licences will be valid while this Agreement is in place and will not include an export volume constraint.
21. The Commonwealth notes Victoria's intention to separate more clearly its commercial forestry activities within native State forests from the broader policy, strategic planning and regulatory functions associated with the management of those forests. Victoria also confirms its commitment to the ongoing implementation of its plans, codes and prescriptions relevant to the achievement of ESFM.
22. The Commonwealth notes Victoria's intention to change the administration arrangements applying to the management of its parks, but that the primary emphasis of management will continue to be the conservation and protection of environmental and heritage values.
23. Victoria confirms that the sustainable yield for forests for East Gippsland will continue to be based on areas available for timber harvesting outside the CAR Reserve System.

Changes to the Agreement

24. This Agreement may only be amended with the consent, in writing, of both parties. Parties agree to work cooperatively to address any differences between them as to the interpretation or implementation of the Agreement. Such differences will be raised in writing by the concerned party. The Agreement will cease to operate only on notification in writing.

Monitoring, Reporting and Consultative Mechanisms

25. This Agreement establishes milestones (Attachment 3) and parties will report annually on their achievement using an appropriate public reporting mechanism.
26. Victoria will report on the results of monitoring of sustainability indicators.
27. Comprehensive Regional Assessments and the development of this Agreement have provided extensive opportunities for public participation and reporting. Parties recognise that the public reporting activities and on-going opportunities for public participation and consultation associated with existing Victorian and Commonwealth processes and instruments will continue. These processes are listed in Attachment 6.

28. In addition to these activities, Victoria agrees to publish future reports of internal audits of compliance with the Code of Forest Practices for Timber Production. Supporting documents will also be publicly available.
29. Victoria will further develop the transparency and accountability of its forest management processes through the implementation of an on-going quality assurance program. The program will be implemented, within three years, utilising expertise external to the forest agency in the Department of Natural Resources and Environment or its equivalent.

Five yearly review

30. Every five years, a review of the performance of the Agreement will be undertaken. The purpose of the five yearly review is to provide an assessment of progress of the Agreement against the established milestones, and will include:
 - the extent to which milestones and obligations have been met including management of the National Estate;
 - the results of monitoring of sustainability indicators; and
 - invited public comment on the performance of the Agreement.
31. While the review process will not open up the Agreement to re-negotiation, both parties may agree to some minor modifications to incorporate the results of the review.
32. The outcomes of the review will be made public. The mechanism for the review will be determined by both parties before the end of the five year period and the review will be completed within three months.

ECOLOGICALLY SUSTAINABLE FOREST MANAGEMENT

33. The parties agree that ESFM is an objective which requires a long term commitment to continuous improvement and that the key elements for achieving it are:
 - the establishment of a CAR Reserve System (Attachment 1);
 - the development of internationally competitive forest products industries; and
 - a fully integrated and strategic forest management system capable of responding to new information.
34. Victoria undertakes to:
 - complete and publish regional prescriptions for timber production by the end of 1997;
 - complete and publish management plans for all National and State Parks by the end of 1998;
 - continue to manage the other Dedicated Reserves within the CAR Reserve System in accordance with the relevant management recommendations of the Land Conservation Council as varied by this Agreement;
 - manage cultural values, both Aboriginal and non-Aboriginal, in East Gippsland, based on the *Guidelines for the Management of Cultural Heritage Values in Forests, Parks and Reserves in East Gippsland* which will be jointly agreed; and

- implement the Integrated Forest Planning System and the Statewide Forest Resource Inventory in East Gippsland in time for the next review of sustainable yield due in 2001.

Accreditation

35. Parties agree that Victoria's forest management systems (including its legislation, policies, Codes, plans and management practices) provide for continuing improvement in relation to ESFM.
36. The Commonwealth accredits Victoria's current forest management system for East Gippsland, as amended by this Agreement. The system includes:
 - the East Gippsland Forest Management Area Plan and the process for its review;
 - the *Flora and Fauna Guarantee Act 1988*;
 - the process for forecasting sawlog sustainable yield in East Gippsland; and
 - the systems and processes established by the Code of Forest Practices for Timber Production and the Code of Practice for Fire Management on Public Land.

Sustainability indicators

37. Parties agree that the current forest management system could be enhanced by further developing appropriate mechanisms to monitor and review the sustainability of forest management practices. To ensure that this occurs, parties agree to establish an appropriate set of sustainability indicators to monitor forest changes. Any indicators established will be consistent with the Montreal Process Criteria and Indicators (Attachment 8) and they will be practical, measurable, cost-effective and capable of being implemented at the regional level.
38. Parties will assess the outcomes of the Montreal Process Implementation Group (MIG) process by the end of 1997. After considering the extent to which the MIG process provides, or is likely to provide, relevant indicators, the process to be used in developing indicators for application in East Gippsland will be determined. Any process adopted will provide for appropriate public consultation and determine the frequency of reporting.
39. In developing effective indicators, parties agree to take into account the results of the Forest and Wood Products Research and Development Corporation's East Gippsland pilot study to develop effective regional indicators.
40. Development of indicators, and collection of results for those indicators which can be readily implemented, will be completed in time to enable assessment at the first five yearly review of this Agreement.

Private land

41. The parties reaffirm their commitments made in the NFPS to the conservation and management of the private forest estate. The parties note that Victoria has, under the *Planning and Environment Act 1987*, native vegetation retention controls to regulate the clearance of native forest on private land.

42. Victoria will continue to encourage private forest owners to ensure that their management operations are consistent with the Code of Forest Practices for Timber Production, and to have in place adequate mechanisms to protect nature conservation and catchment values.

Threatened Fauna and Flora

43. Where threatened species, ecological communities and threatening processes restricted to Victoria are listed under both the *Flora and Fauna Guarantee Act 1988* and the *Endangered Species Protection Act 1992*, any new or revised Action Statements will be jointly prepared to meet the requirements of both acts. Where the Action Statements meet the requirement of the *Endangered Species Protection Act 1992*, the Commonwealth agrees to adopt Action Statements as Recovery Plans under Section 46 of the *Endangered Species Act 1992*.
44. National Recovery Plans for items listed under both Acts and extending beyond Victoria will be prepared jointly with Victoria and other relevant governments, and incorporate the agreed Action Statement as the Victorian component of the National Recovery Plan.
45. Parties will continue to consult on the priorities for listing threatened species, ecological communities and threatening processes, and the preparation of Action Statements and Recovery Plans, recognising that priorities can change in the light of new information. Currently agreed priorities for the next five years are outlined in Attachment 4.
46. Parties agree that within five years pest plant and pest animal control programs will be developed in accordance with the East Gippsland Forest Management Area Plan.

THE CAR RESERVE SYSTEM

47. Parties agree that the primary function of the CAR Reserve System is to ensure the conservation and protection of environment and heritage values.
48. Parties agree that the CAR Reserve System that is identified on Map 1 and described in Attachment 1 satisfies the JANIS Reserve Criteria¹. Each element of the reserve system will be administered in accordance with Victorian legislation.
49. Victoria agrees to implement the tenure and zoning changes described in Attachment 1.
50. Parties agree that any changes to that component of the CAR Reserve System in State forest will only occur in accordance with this Agreement, will not lead to a net deterioration in the protection of identified values, and will be publicly available.
51. Victoria agrees to produce and publish by June 1997 an amendment to the East Gippsland Forest Management Area Plan that describes the changes to management zones and protection levels to different values brought about by this Agreement. In addition the amendment will:
 - explain the role of the JANIS Reserve Criteria in attaining a CAR Reserve System; and

- amend the 'Guidelines for Reviewing Management Strategies and Zones' on page 79 of the Forest Management Area Plan as described in Box 1 in Attachment 5.
52. Parties recognise that all Victorian rainforest is protected from harvesting through the range of mechanisms described in Attachment 1.

INDUSTRY DEVELOPMENT

53. Parties will facilitate industry development through enhanced resource certainty, recognising that a purpose of this Agreement is to provide long-term stability of forests and forest industries. The Commonwealth will facilitate industry development by not preventing enterprises obtaining, using or exporting timber, woodchips or unprocessed wood products sourced from the East Gippsland region. In addition, parties will encourage:
- introduction of new technology;
 - value adding;
 - utilisation of regrowth timber for sawn products;
 - thinning of regrowth forests; and
 - extraction of residual wood.

INDIGENOUS HERITAGE

54. Victoria will, in accordance with the East Gippsland Forest Management Area Plan, formalise a consultation, participation and negotiation mechanism with the relevant Aboriginal groups in East Gippsland to ensure the appropriate management of Aboriginal heritage, including the maintenance of traditional and historic uses and values, in East Gippsland.
55. This Agreement is not intended to influence either current or future Native Title claims in any way. Where any government action to implement this Agreement could affect Native Title, that action will be taken in accordance with the *Native Title Act 1993*.

PLANTATIONS

56. The Commonwealth will seek to remove export controls on unprocessed timber sourced from Victorian plantations before the end of March 1997.

OTHER FOREST USES

57. Parties agree that forest uses other than timber production will be determined in accordance with Victorian legislation with due regard for protection of environmental and heritage values. In some limited circumstances that do not relate to the substance of this Agreement (for example foreign investment approval, export controls for non-forest products and major infrastructure developments) Commonwealth legislative provisions may also apply.
58. Parties recognise that under legislative provisions in Victoria, issuing of new exploration licences and subsequent mining is not permitted in National Parks, Wilderness Parks, State Parks and Reference Areas.

59. Parties recognise that exploration and mining may be permitted in other parts of the CAR Reserve System where the identified conservation values are not incompatible with exploration and mining. Victoria will ensure proposed mining activities in the CAR Reserve System will be the subject of an individual Environmental Effects Statement as defined by the *Environment Effects Act 1978*. In the case of exploration, the provisions of the *Mineral Resources Development Act 1990* require the application of conditions to protect environmental values, and may in the case of proposed road construction or bulk sampling require an exploration impact statement. Where such exploration activities are proposed in the CAR Reserve System, Victoria will ensure an impact statement is carried out.
60. Rehabilitation of any mine site will be in accordance with the provisions of the *Mineral Resources Development Act 1990*, and it will aim to achieve world's best practice.

COMPETITION PRINCIPLES

61. Parties recognise that under the Competition Principles Agreement, Governments aim to achieve more transparency and greater efficiency in Government owned business enterprises. The Commonwealth agrees that the day to day pricing and allocation arrangements for wood from public forests are matters for Victoria. Victoria confirms its commitment to the pricing and allocation principles set out in the National Forest Policy Statement. Victoria confirms that legislation and policies relevant to the allocation and pricing of hardwood logs from State forests will be reviewed as part of the Competition Principles Agreement before the end of 1999. Competitive neutrality principles will be taken into account in any changes following the review.

RESEARCH

62. The results of the Comprehensive Regional Assessments of the forest values of East Gippsland indicated a number of areas requiring further research. Parties have outlined research priorities in Attachment 7.
63. Parties agree to consult each other in the development of future research projects that may affect the Agreement and note that the subject areas and priorities may change throughout the duration of the Agreement.
64. Parties agree to make publicly available, wherever possible, research reports relevant to this Agreement. In addition, Victoria agrees to publish its rainforest research by December 1997.

FUNDING

65. The parties agree that achieving the objectives of this Agreement will require the commitment of financial resources from both Governments.
66. The Commonwealth will consider assistance for the development of sustainability indicators and work on endangered species. Under these circumstances where possible and appropriate, Victoria will administer funds provided by, and on behalf of, the Commonwealth for projects agreed within the context of this Agreement. Where this occurs, Victoria will establish appropriate financial review and monitoring arrangements agreed by the Commonwealth.

DATA AGREEMENT

67. Parties agree to develop an agreement concerning the management of the data used to develop this Agreement within six months of signing. The data agreement will cover:

- ownership and custodianship;
- archival lodging and location and associated documentation standards; and
- access, use and maintenance of the data.

Parties also agree to lodge archival copies of data within six months of signing this Agreement.

Attachment 1	Comprehensive Adequate and Representative (CAR) reserve system
Attachment 2	Listing, protection and management of National Estate values in East Gippsland
Attachment 3	Milestones
Attachment 4	Threatened flora, fauna and communities
Attachment 5	Guidelines for reviewing management strategies and zones
Attachment 6	Public reporting and consultative mechanisms
Attachment 7	Research
Attachment 8	Montreal Process for the conservation and sustainable management of temperate and boreal forests