

FOREWORD

This report has been prepared to assist stakeholders and the broader community to have input to the development of a Regional Forest Agreement (RFA) for East Gippsland.

It builds upon information contained in the Comprehensive Regional Assessment (CRA) reports released in August/September 1996, and the results of extensive consultation following the release of the CRA reports.

The report focuses on:

- examples of how the comprehensive, adequate and representative (CAR) reserve system may be designed to satisfy the national forest reserve criteria (JANIS 1996);
- the elements of ecologically sustainable forest management (ESFM) which are integral to the development of a RFA;
- industry opportunities and the socio-economic outcomes and environmental implications associated with those 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 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 five yearly reviews of performance against the commitments that have been agreed.

Release of this report marks the beginning of an eight week period of public consultation relating to the completion of the RFA. To assist with this consultation, a series of workshops will be held in East Gippsland and Melbourne to discuss this report and any issues which need to be considered in finalising the RFA.

Written submissions are invited and they could 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.

Peter Channells (Commonwealth Project Manager - 06 271 5546) and Ian Miles (Victorian Project Manager - 03 9412 4131) are available to discuss any issue relating to this report or the RFA process in general.

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1. BACKGROUND

1.1 THE REGION

The East Gippsland RFA region covers 1.2 million hectares in the far eastern corner of Victoria, approximately 320 km east of Melbourne and 200 km south of Canberra. Public land comprises 87% of the area, and most of this is native forest.

Approximately 40% of the region is within national parks and other conservation reserves which are the result of comprehensive land use reviews undertaken by the Land Conservation Council (1979-91). The Council also identified the area of State forest to be generally available for timber production and other uses. Subsequently, the East Gippsland Forest Management Plan, prepared by the Victorian Department of Conservation and Natural Resources, was released in December 1995. It covers all State forest in the region, and establishes strategies for integrating the use of State forest for wood production and other purposes, with conservation of natural, aesthetic and cultural values across the region. Copies are available from the Department of Natural Resources and Environment.

1.2 COMPREHENSIVE REGIONAL ASSESSMENTS

The National Forest Policy Statement defines the need for Comprehensive Regional Assessments (CRAs) to occur as part of the process leading to the development of a Regional Forest Agreement.

The assessment reports for East Gippsland were published in August and September. There are eight reports as follows:

- Overview of Assessments (EG CRA 1996a)
- Resource and Economics Report (EG CRA 1996b)
- Social Report (EG CRA 1996c)
- Environment and Heritage Report (EG CRA 1996d)
- National Estate Report (EG CRA 1996e)
- Wilderness of the Eastern Victorian Forests (EG CRA 1996f)
- Methods paper: National Estate Assessment - Natural Values (EG CRA 1996g)

Ecologically Sustainable Forest Management (EG CRA 1996h)

These reports provide extensive information on the East Gippsland region and background information forming the basis of the reserve, industry and ESFM scenarios described in this report. These reports are available for viewing and purchase at the Orbost and Melbourne offices of the Victorian Department of Natural Resources and Environment or may be ordered by calling 1800 026 222.

1.3 CONSULTATION PROCESSES

Previous Victorian land use planning processes in East Gippsland have provided extensive opportunities for community involvement in forest issues over the last fifteen years, and the RFA process has built on those processes through a wide range of consultation activities with the local community and other interest groups in the last few months.

Meetings were held in Orbost and Melbourne in April to explain the RFA process and to allow stakeholders to decide how they wished to be involved. Subsequently, a background paper outlining the process and the involvement of stakeholders was published and sent to all stakeholder groups.

Development of the Social Report in particular provided further extensive opportunities for involving the community, including workshops in the townships and adjoining districts of Buchan, Nowa Nowa, Orbost, Cann River, Mallacoota and Bendoc. In addition, other opportunities for community input included an extensive telephone survey of the region, 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, workshops with stakeholders and community representatives were held in five locations in East Gippsland (Bendoc, Cann River, Mallacoota, Orbost and Buchan) and several meetings were also held with groups in Melbourne. These workshops provided an update of the RFA process, an overview of the CRA reports and sought to identify issues that should be addressed in the development of the RFA. A second series of workshops in the same locations was conducted prior to the development of this report.

Further extensive consultation will occur over the next eight weeks prior to finalisation of the RFA.

1.4 ISSUES RAISED DURING CONSULTATION

The issues raised during the Social Assessment were presented in the Social Assessment Report and the issues raised in the workshops held prior to release of this report are listed in Appendix A.

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 community issues.

Many of the community 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 community issues which were raised are not directly related to the RFA process although they are important in a broader regional context. While there is limited ability to address the wide range of issues outside of the 'core RFA' issues, there has been an attempt to provide a conduit to those areas of government that have responsibility for those areas. A potential outcome of this work could be better, or more integrated, delivery of programs that address the wider community concerns. Examples of relevant programs are discussed in Appendix B.

2. ECOLOGICALLY SUSTAINABLE FOREST MANAGEMENT

Ecologically sustainable forest management (ESFM) is a relatively new concept which focuses greater emphasis than previously on the management of the full range of forest values. It may be defined as management with the aim of improving the welfare of society (both material and non-material) whilst ensuring that the values of forests, both as a resource for commercial use and for conservation, are not lost for current and future generations.

The key elements of ESFM relate to the design of the forest conservation reserve system, and the management processes which apply to forests both inside and outside the reserve system.

ESFM will be an important consideration in finalising a RFA. The design of the reserve system is considered in Section 3, but to assist with consideration of other ESFM issues an independent Expert Advisory Group was established by the Victorian RFA Steering Committee. The group was asked to assess the forest management systems which are being applied in East Gippsland. The assessment was made using a set of principles and criteria which describe the components of sustainability (ecological, economic and social aspects) and which could provide a basis for continuing improvement.

The report of the independent Expert Advisory Group (EG CRA 1996g) concluded that much has been accomplished in developing and implementing planning processes for ESFM in East Gippsland. It further noted that the well developed hierarchy of planning and its integration addresses the range of forest values, which is fundamental to ESFM, and that the role of public input is well established. The Expert Group also acknowledged that the implementation of ESFM involves a process of continuous improvement and while, in overall terms, the situation in East Gippsland is well advanced, some suggested areas for improvement were identified including inventory, research, monitoring and public understanding of forest management.

Major systems and processes relevant to ecologically sustainable forest management in East Gippsland include:

The conservation reserve system and its management

The analysis noted in Section 3 reveals that the reserve system in East Gippsland is well-designed and protects to a high degree a broad range of conservation values.

Codes of Forest Practice and Fire Practice

The Codes have two major features: those designed to ensure that forest operations are safe and well managed; and those designed to ensure that forest operations are well managed in terms of environmental protection.

Planning

The hierarchy of planning processes is designed to address the range of forest values and to ensure that public input mechanisms are also well established. This includes the forest zoning scheme which is composed of: Special Protection Zones (SPZ) that are managed for conservation and within which timber harvesting is excluded; Special Management Zones (SMZ) that are managed to conserve specific features while catering for timber production under certain conditions; and the General Management Zone (GMZ) that is managed for a range of uses, but in which timber production has a high priority.

Management prescriptions

Protection of a range of specific conservation values within production forests also arises from specific legislation (such as the *Flora and Fauna Guarantee Act 1988* and the *Endangered Species Protection Act, 1992*) and prescriptions developed within the framework of the Code of Forest Practices.

Ongoing research

A strength of the Department of Natural Resources and Environment is its multidisciplinary approach to research and development. Ongoing research and development is essential to better understanding of the forest environment and improving forest management.

Compliance Auditing and Monitoring

Processes for monitoring, especially of environmental outcomes, are essential to ensure the effective achievement of management objectives and to provide a basis for continuous improvement.

Although the Victorian RFA Steering Committee is yet to finalise its analysis of the independent Expert Advisory Group's report, the Committee has agreed that a number of issues raised warrant further attention and may be addressed in the RFA. These include but are not restricted to:

- monitoring, audit and review
This involves the development of measures to assess the outcomes of forest activities to ensure that management actions are effective in the long term and the evaluation of relevant management processes to ensure compliance with Codes of Practice and/or other regulatory instruments;
- performance indicators
This involves examination of the development of regional indicators of ESFM (to cover such issues as biodiversity, social, economic and resource values and the effectiveness of management systems) within the framework of the Montreal criteria.
- management of cultural values
The Victorian RFA Steering Committee has let a consultancy to develop broad principles for cultural heritage management in East Gippsland prior to the signing of the RFA. Indigenous community consultation will also occur during this time to refine the strategy for managing indigenous heritage.
- sustainable yield
While the independent review of the sustainable yield methodology, contained in the Resource and Economics report (EG CRA 1996b), found the methodology to be adequate, some potential improvements were identified, particularly with respect to data and models used for future sustainable yield forecasts. Such improvements may be addressed as part of the RFA.

- conservation strategies for priority species and vegetation communities

Table 2.3 of the Environment and Heritage report (EG CRA 1996d) lists the threatened fauna of East Gippsland, along with their current status and whether or not action plans or recovery statements are in place. A priority listing of species for consideration in the RFA can be derived from the Environment and Heritage report. Given the large number of threatened flora in East Gippsland (Table 2.8 of the Environment and Heritage report), the RFA could include priorities for mitigating the processes which threaten these species. In addition to individual fauna and flora species, priority could be given to the development of recovery plans for some Ecological Vegetation Classes (EVCs) in East Gippsland.

- conservation of the National Estate

Identified national estate values and indicative places were considered in the development of the scenarios in this report. Management of these values and places will be an important consideration in finalising the RFA, in accordance with protection guidelines based on the nature (extensive or site based) and sensitivity of the values.

- research and data inventory priorities

It is anticipated that the RFA may identify a priority listing for future research, based on the issues raised in the various CRA reports.

3. COMPREHENSIVE, ADEQUATE AND REPRESENTATIVE RESERVE SYSTEM

A comprehensive, adequate and representative (CAR) reserve system based on the proposed nationally agreed reserve criteria (JANIS 1996) will form a central feature of the Regional Forest Agreement. (Appendix D summarises the comprehensive, adequate and representative reserve criteria.)

Central to the proposed 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 East Gippsland context these equate with National Parks and Flora and Fauna Reserves for example.
- Informal Reserves - areas reserved under other secure tenure of management arrangement. In the East Gippsland context these equate to 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 impossible or impracticable as a result of the nature of the value. In the East Gippsland situation this relates to protection afforded by the Code of Forest Practices for Timber Production, the Special Management Zones (SMZ) and the General Management Zones (GMZ) as delineated in the East Gippsland Forest Management Plan.

The existing East Gippsland reserve system was analysed against the proposed criteria. As illustrated in the Environment and Heritage Report (EG CRA 1996d), the existing reserve system contains most of the conservation values and features required in a CAR reserve system, and the protection established by the system is significantly greater than required for many values.

The following section canvasses some scenarios for the CAR reserve system that meet the national reserve criteria in different ways. The scenarios described here, and illustrated on maps 1-4, indicate some possible configurations of the CAR reserve system that are realistic in their scope. There is no preferred scenario and stakeholders are invited to submit alternatives. Map 5 and Appendix E provide information about all potential areas considered in the development of the various scenarios. This information is provided to assist in making submissions and in developing alternative scenarios.

3.1 ISSUES RELATED TO THE NATIONAL RESERVE CRITERIA

An analysis of current land allocation in East Gippsland against the national reserve criteria for Ecological Vegetation Class (EVC) and old-growth reservation has been undertaken, and the detailed results are provided in Table 3.1. The key issues identified by that analysis to be considered in developing the CAR reserve system are summarised below.

Representative Conservation of Ecological Vegetation Classes

In East Gippsland the Ecological Vegetation Classes (EVC) have been used as a basis for the analysis of representation in the current reserve system. The majority of EVCs exceed 15% representation in the dedicated reserve system. For the following EVCs which have less than 15% in the dedicated reserve system (Foothill Box Ironbark Forest, Herb Rich Forest and Montane Riparian Thicket) additional areas are protected in the SPZ so that the total reservation level is in excess of 15%. Although well protected in SPZs, consideration could be given to including examples of Foothill Box Ironbark Forest and Herb Rich Forest in the dedicated reserve system.

Limestone Grassy Woodland and Sand Heathland fall short of the target because a significant proportion of their area is on private land (Table 3.1). Conservation of these EVCs should be encouraged through extension and support to landholders and through voluntary agreements.

Representative Conservation of Endangered, Vulnerable and Rare Ecological Vegetation Classes

The national reserve criteria require that all viable stands of endangered and rare EVCs, and at least 60% of vulnerable EVCs be protected. The majority of the 18 EVCs in these categories have high levels of representation in the reserve system. The situation for Sand Heathland and Limestone Grassy Woodland, is outlined in the previous paragraph.

Clay Heathland is well represented in dedicated reserves and SPZs although some areas are outside larger SPZs. These are small isolated occurrences and are protected by prescriptions in the East Gippsland Forest Management Plan.

Eighty-one percent of Foothill Box Ironbark Forest is protected in SPZs. Some additional stands in the GMZ could be considered for additional protection.

Montane Riparian Woodland falls short of the target because a significant proportion of its area is on private land and public land frontages along streams. Its conservation should be encouraged through extension and support to landholders.

Representative Conservation of Old-growth Forest

Of those EVCs that have old-growth forest, the majority are represented in the existing reserve system to a level exceeding the 60% national reserve criteria target.

For EVCs where the area of old-growth forests as a proportion of the EVC is less than 10%, all viable examples should be protected to meet the national reserve criteria. The key EVCs in this category are old-growth Lowland Forest and old-growth Montane Dry Woodland. Consideration could be given to protection of the remaining viable examples of these communities.

There are two instances (Wet and Damp EVCs) where 60% of the old-growth is represented in dedicated reserves and the SPZ, but the last few percent are protected in linear riparian strips of forest protected under the Code Of Forest Practices for Timber Production. These areas are also part of the SPZ. Consideration could be given to increasing the area of old-growth Wet Forest and Damp Forest in non-linear components of the CAR reserve system.

Other Reserve Criteria

National reserve criteria such as reserve design, geographic representation, and protection of high quality habitat for all known elements of biodiversity have been addressed through previous Land Conservation Council reviews and the development of the East Gippsland Forest Management Plan. The Environment and Heritage and the National Estate Assessment reports (EG CRA 1996d, e) discuss these criteria in greater detail and they have been taken into account in developing the potential reserve scenarios described in Section 3.3.

The national reserve criteria 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 scenarios described have been developed within this context.

Table 3.1 Ecological Vegetation Class and Old-growth - current reservation status

Issue	Reservation of Pre 1750 Ecological Vegetation Classes		Endangered, Vulnerable and Rare Ecological Vegetation Classes			Old Growth Forest	
	Ecological Vegetation Class	Target = 15%	Vulnerable Target = 60%	Rare Target = all viable stands	Endangered Target = all viable stands	OGF in Cons Res. + SPZ (a+b+c)* Target =60%	OGF w. < 10% of EVC as OGF Target + all viable stands
1. Coastal Dune Scrub	Met	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	99% protected
2. Coast Banksia Woodland	Met	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Met	N/A
3. Coastal Grassy Forest	Met	100% reserved	Not Applicable	Not Applicable	Not Applicable	No Old-growth	No Old-growth
4. Coastal Vine-rich Forest	Met	99% protected	99% protected	99% protected	Not Applicable	Met	N/A
5. Coastal Sand Heathland	Met	Not Applicable	100% protected	Not Applicable	Not Applicable	No Old-growth	No Old-growth
6. Sand Heathland	4% protected (Most of EVC (90 ha) occurs on private land)	4% protected (Most of EVC (90 ha) occurs on private land)	4% protected (Most of EVC (90 ha) occurs on private land)	Not Applicable	Not Applicable	No Old-growth	No Old-growth
7. Clay Heathland	Met	Not Applicable	Areas not in larger SPZs are protected by prescription	Not Applicable	Not Applicable	No Old-growth	No Old-growth
8. Wet Heath	Met	Not Applicable	Not Applicable	Not Applicable	Not Applicable	No Old-growth	No Old-growth
9. Coastal Saltmarsh	Met	Not Applicable	100% protected	Not Applicable	Not Applicable	No Old-growth	No Old-growth
10. Estuarine Wetland	Met	98% reserved	98% protected	Not Applicable	Not Applicable	No Old-growth	No Old-growth
11. Coastal Lagoon Wetland	Met	Not Applicable	95% protected	Not Applicable	Not Applicable	No Old-growth	No Old-growth
12. Wet Swale Herbland	Met	Not Applicable	100% protected	Not Applicable	Not Applicable	No Old-growth	No Old-growth
13. Brackish Sedgeland	Met	Not Applicable	100% protected	Not Applicable	Not Applicable	No Old-growth	No Old-growth
14. Banksia Woodland	Met	Not Applicable	Not Applicable	Not Applicable	Not Applicable	No Old-growth	No Old-growth
15. Limestone Box Forest	Met	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	75% protected. All viable areas to be considered.
16. Lowland Forest	Met	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	69.5% protected. All viable areas to be considered
17. Riparian Scrub Complex	Met	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Met	N/A
18. Riparian Forest	Met	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	76% protected. All viable areas to be considered
19. Riparian Shrubland	Met	Not Applicable	100% reserved	Not Applicable	Not Applicable	No Old-growth	No Old-growth
20. Heathy Dry Forest	Met	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Met	N/A
21. Shrubby Dry Forest	Met	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Met	N/A
22. Grassy Dry Forest	Met	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Met	100% reserved
23. Herb-rich Forest	30% protected (7.5% in dedicated reserves. 22.5% in SPZ)	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	64% protected. All viable areas to be considered
24. Foothill Box Ironbark Forest	81% protected. All in SPZ.	Not Applicable	81% protected. (All in SPZ) All viable stands to be considered.	Not Applicable	Not Applicable	Not Applicable	78% protected (All in SPZ). All viable areas to be considered
25. Limestone Grassy Woodland	9% reserved Viable areas to be considered Most of EVC on private land	9% reserved Viable areas to be considered Most of EVC on private land	Not Applicable	Not Applicable	Not Applicable	Not Applicable	100% reserved
26. Rainshadow Woodland	Met	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	100% reserved
27. Rocky Outcrop Scrub	Met	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Met	N/A

28. Rocky Outcrop Shrubland	Met	Not Applicable	Not Applicable	Not Applicable	Met	N/A
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Table 3.1 (continued)

Issue	Reservation of Pre 1750 Ecological Vegetation Classes	Endangered, Vulnerable and Rare Ecological Vegetation Classes			Old Growth Forest	
		Ecological Vegetation Class	Target = 15%	Vulnerable Target = 60%	Rare Target = all viable stands	Endangered Target = all viable stands
29. Damp Forest	Met	Not Applicable	Not Applicable	Not Applicable	61% protected @	N/A
30. Wet Forest	Met	Not Applicable	Not Applicable	Not Applicable	60% protected #	N/A
31. Cool Temperate Rainforest	Met	Not Applicable	100 % protected (38% code)	Not Applicable	No Old-growth	N/A
32. Warm Temperate Rainforest	Met	Not Applicable	100 % protected (41% code)	Not Applicable	No Old-growth	No Old-growth
33. Cool/Warm Rainforest	Met	Not Applicable	100 % protected (49.5% code)	Not Applicable	No Old-growth	No Old-growth
34. Dry Rainforest	Met	100% reserved	100 % protected	Not Applicable	No Old-growth	No Old-growth
35. Tablelands Damp Forest	Met	Not Applicable	Not Applicable	Not Applicable	Met	N/A
36. Montane Dry Woodland	Met	Not Applicable	Not Applicable	Not Applicable	Not Applicable	60% protected. All viable stands to be considered.
37. Montane Grassy Woodland	Met	Not Applicable	Not Applicable	Not Applicable	No Old-growth	No Old-growth
38. Montane Damp Forest	Met	Not Applicable	Not Applicable	Not Applicable	Not Applicable	97% protected.
39. Montane Wet Forest	Met	Not Applicable	Not Applicable	Not Applicable	Met	N/A
40. Montane Riparian Woodland	Met	Not Applicable	23% protected Additional 19% on private land	Not Applicable	Not Applicable	100% protected.
41. Montane Riparian Thicket	Met	Not Applicable	100 % protected (88% code)	Not Applicable	Not Applicable	100% protected.
42. Sub-alpine Scrubland	Met	Not Applicable	100% protected	Not Applicable	No Old-growth	No Old-growth
43. Sub-alpine Woodland	Met	Not Applicable	Not Applicable	Not Applicable	Not Applicable	95% protected
44. Treeless Sub-alpine Complex	Met	Not Applicable	85% protected, Additional 7% on private land	Not Applicable	No Old-growth	No Old-growth
Limestone Pomaderris Shrubland	Met	Not mapped but approx 95% reserved	Not mapped but approx 95% reserved	Not mapped but approx 95% reserved	No Old-growth	No Old-growth

* SPZ A Non Linear areas; SPZ B 200m Linear; SPZ C 40m Linear
 @ Reservation of old-growth Damp Forest Dedicated Reserves 44% SPZ A 10% SPZ B 4% SPZ C 3%
 # Reservation of old-growth Wet Forest Dedicated Reserves 44% SPZ A 9% SPZ B 3% SPZ C 4%

3.2 DEVELOPMENT OF SCENARIOS

The following issues were taken into account in developing the scenarios in Section 3.3:

- EVC and old-growth forest maps were used to identify areas of State forest that could form logical additions to the reserve system;
- the size and shape of areas selected were guided by reserve design principles;
- areas of importance to the community identified during consultation workshops held in East Gippsland and in Melbourne;
- the need to constrain impacts on timber resource availability;
- some areas of SPZ and SMZ (currently unavailable, or of restricted availability for timber production), that may not be required to meet the national reserve criteria were identified. The scenarios described below include proposed zoning amendments which would enable these areas to be used for timber production in the future;
- each of the areas identified above were checked for suitability for inclusion in the CAR reserve system on the basis of disturbance and viability; and
- documentation of the values of each potential area. Information on old-growth forest, EVC and national estate values were derived from Geographic Information System overlays and timber resource information from Hardwood Resource Inventory System (HARIS) maps.

A full list of areas considered and their associated values is provided in Appendix E and illustrated on Map 5.

3.3 POTENTIAL RESERVE SCENARIOS

Maps 1 to 4 illustrate each potential scenario. Appendix E includes information on each area considered in developing the scenarios and indicates the areas that have been incorporated in scenarios 2 to 4.

Scenario 1 (Map 1)

This scenario comprises the existing dedicated reserve system and the SPZ established in the East Gippsland Forest Management Plan. Current land tenure is unchanged.

Table 3.2 Scenario 1 - Summary of key values:

Ecological Vegetation Class	pre -1750 Area (ha)	Reserves	SPZ A Non Linear areas	SPZ B 200m Linear	SPZ C 40m Linear	SMZ	GMZ	Other public land	Private Land
Foothill Box-Ironbark (inc. OG)	603	0%	81%	0%	0%	0%	18%	0%	0%
Limestone Grassy Woodland	5 259	8%	1%	0%	0%	0%	3%	0%	20%
Herb Rich Forest (inc. OG)	21 880	7.5%	21%	0.5%	1%	5%	14%	0%	24%

Ecological Vegetation Class	Current area (ha)	Reserves	SPZ A Non Linear areas	SPZ B 200m Linear	SPZ C 40m Linear	SMZ	GMZ	Other public land	Private Land
OG Montane Dry Woodland	2 886	28%	32%	0%	2%	1%	37%	0%	0%
OG Lowland	16 487	62%	6%	1.5%	2%	9%	19%	0.5%	0%
OG Damp	42 748	43.8%	9.7%	3.6%	3.4%	3.8%	35.7%	0%	0%
OG Wet	36 585	43.6%	9.3%	3.3%	3.6%	3.3%	36.9%	0%	0%

Key features:

- most CAR reserve criteria are fully met and many are exceeded;
- regional biodiversity conservation strategies established in the Forest Management Plan (DCNR 1995a) are maintained;
- 60% of old-growth forest is protected in all EVCs through a combination of dedicated reserves, SPZ (including areas protected by prescriptions under the Code). There is an additional area of approximately 40,000ha of old-growth unsuitable for timber harvesting which contributes to its conservation;
- to maintain a balance between conservation and timber production 70% of old-growth Lowland Forest and Montane Dry Woodland is protected in the CAR reserve system. Additional areas of Lowland Forest that are negligibly disturbed are protected to provide geographic representation and recruitment of old-growth forest in the longer term;
- no change to timber resource availability;
- wilderness (EG CRA 1996f) protection exceeds the national reserve criteria targets for East Gippsland;
- biodiversity and National Estate protection is as detailed in the CRA reports (EG CRA 1996d, e); and
- the regional sustainable yield for D+ sawlogs is 250,000m³ per annum.

Scenario 2 (Map 2)

In addition to existing dedicated reserves and the SPZ this scenario includes other areas to protect all viable examples of those EVCs requiring maximum protection under the national reserve criteria. It also provides for some areas that are currently unavailable, or have restricted access under the existing Forest Management Plan, to be made available for timber production. These areas are the same in scenarios 3 and 4.

Table 3.3 Scenario 2 - Summary of key values:

Ecological Vegetation Class	pre -1750 Area (ha)	Reserve	SPZ A Non Linear areas	SPZ B 200m Linear	SPZ C 40m Linear	SMZ	GMZ	Other public land	Private Land
Foothill Box-Ironbark (inc. OG)	603	0%	87%	0%	0%	0%	12%	0%	0%
Limestone Grassy Woodland	5 259	8%	4%	0%	0%	0%	0%	0%	20%
Herb Rich Forest (inc. OG)	21 880	7.5%	22%	0.5%	1%	5%	13%	0%	24%

Ecological Vegetation Class	Current area (ha)	Reserves	SPZ A Non Linear areas	SPZ B 200m Linear	SPZ C 40m Linear	SMZ Non Linear	GMZ other, timber	Other public land	Private Land
OG Montane Dry Woodland	2 886	28%	32%	0%	2%	1%	36%	0%	0%
OG Lowland	16 487	62%	20%	1.5%	2%	2%	12%	0.5%	0%
OG Damp	42 748	43.8%	11.6%	3.6%	3.4%	3.8%	33.8%	0%	0%
OG Wet	36 585	43.6%	11.0%	3.3%	3.6%	3.3%	35.2%	0%	0%

Key features:

- all viable examples of old-growth Lowland Forest protected, most notably those within the Betka River Catchment;
- remainder of the Betka catchment included in the SMZ;
- all viable examples of some other EVCs also protected (eg old-growth Montane Dry Woodland & Foothill Box Ironbark Forest);
- Ellery Creek catchment included thereby increasing the area of old-growth Damp Forest and old-growth Wet Forest in non-linear reserves, and increasing the protection of other values in the catchment such as threatened species habitat;
- areas of high wilderness quality are protected in both the Betka River and Ellery Creek inclusions;
- protection of biodiversity and protection of National Estate values related to refuges and endemic species are enhanced; and
- reduction in regional sustainable yield of D+ sawlogs of 800m³ per annum (0.32%).

Scenario 3 (Map 3)

This scenario builds on scenario 2 and includes additional areas of old-growth Damp Forest and old-growth Wet Forest outside the linear components of the SPZ.

Table 3.4 Scenario 3 - Summary of key values:

Ecological Vegetation Class	pre -1750 Area (ha)	Reserve	SPZ A Non Linear areas	SPZ B 200m Linear	SPZ C 40m Linear	SMZ	GMZ	Other public land	Private Land
Foothill Box-Ironbark (inc. OG)	603	0%	87%	0%	0%	0%	12%	0%	0%
Limestone Grassy Woodland	5 259	8%	4%	0%	0%	0%	0%	0%	20%
Herb Rich Forest (inc. OG)	21 880	7.5%	22%	0.5%	1%	5%	13%	0%	24%

Ecological Vegetation Class	Current area (ha)	Reserves	SPZ A Non Linear areas	SPZ B 200m Linear	SPZ C 40m Linear	SMZ	GMZ	Other public land	Private Land
OG Montane Dry Woodland	2 886	28%	32%	0%	2%	1%	36%	0%	0%
OG Lowland	16 487	62%	20%	1.5%	2%	2%	12%	0.5%	0%

OG Damp	42 748	43.8%	13.2%	3.6%	3.4%	3.8%	32.2%	0%	0%
OG Wet	36 585	43.6%	13.1%	3.3%	3.6%	3.3%	33.1%	0%	0%

Key features:

- includes all features of scenario 2;
- additional areas protected in Yalmy, Cobon, Buldah, Ada and Rich Blocks;
- improved geographic representation of old-growth Wet forest (Buldah Block);
- the area of high wilderness quality are protected to the same level as scenario 2;
- biodiversity and National Estate values related to refuges and endemic species are enhanced beyond scenario 2; and
- a reduction in sustainable yield of D+ sawlogs of 1,400m³ per annum (0.56%).

Scenario 4 (Map 4)

This scenario builds on scenario 2 and provides additional areas of old-growth Wet Forest and old-growth Damp Forest outside the linear components of the SPZ. It provides an alternative set of areas to achieve a similar outcome to scenario 3.

Table 3.5 Scenario 4 - Summary of key values:

Ecological Vegetation Class	pre -1750 Area (ha)	Reserve	SPZ A Non Linear areas	SPZ B 200m Linear	SPZ C 40m Linear	SMZ	GMZ	Other public land	Private Land
Foothill Box-Ironbark (inc. OG)	603	0%	87%	0%	0%	0%	12%	0%	0%
Limestone Grassy Woodland	5 259	8%	4%	0%	0%	0%	0%	0%	20%
Herb Rich Forest (inc. OG)	21 880	7.5%	22%	0.5%	1%	5%	13%	0%	24%
Ecological Vegetation Class	Current area (ha)	Reserves	SPZ A Non Linear areas	SPZ B 200m Linear	SPZ C 40m Linear	SMZ	GMZ	Other public land	Private Land
OG Montane Dry Woodland	2 886	28%	32%	0%	2%	1%	36%	0%	0%
OG Lowland	16 487	62%	20%	1.5%	2%	2%	12%	0.5%	0%
OG Damp	42 748	43.8%	13.1%	3.6%	3.4%	3.8%	32.3%	0%	0%
OG Wet	36 585	43.6%	13.1%	3.3%	3.6%	3.3%	33.1%	0%	0%

Key features:

- protection of old-growth Wet forest in Big River catchment, and Martins Creek Block;
- protection of old-growth Damp Forest in Cobon, Sardine and Sisters Blocks;
- additional sub-catchment protection for rainforest areas in Martins Ck and Cobon Blocks;
- areas of high wilderness quality are protected to the same level as scenario 2;
- biodiversity and National Estate values related to refuges, endemic species and succession have been enhanced; and
- a reduction in regional sustainable yield of D+ sawlogs of 2,000m³ per annum (0.8%).

Areas Which May Be Returned To Timber Production

In developing scenarios 2-4, additional areas have been proposed for inclusion in the reserve system. To constrain the impacts of these additions on timber supply levels, some other areas are proposed for removal from the reserve system within State established by the East Gippsland Forest Management Plan. These areas are within the SPZ and SMZ and they contain values that are protected to levels well in excess of the national reserve criteria. The relevant areas are listed in Table 3.6.

Table 3.6 Areas which may be returned to timber production

Area Number	Area	Current Status	Proposed Status	Key Values (see explanation below)	Resources Total D+ gross
90	582	SPZ	SMZ	Powerful and Sooty Owl habitat	3 729
91	337	SPZ	SMZ	Sooty Owl habitat and Rainforest	17 306
92	128	SPZ	GMZ	Sooty Owl habitat	13 621
94	1 121	SPZ	SMZ	Powerful Owl & Sooty Owl habitat	13 180
95	753	SPZ	SMZ	Powerful Owl habitat	12 520
96	761	SPZ	GMZ	Banksia Woodland	2 739
100	107	SPZ	GMZ	Rainforests Site of Significance - Regional	670
101	334	SPZ	SMZ	Powerful Owl habitat	1 696
102	338	SPZ	SMZ	Powerful Owl habitat	16 830
103	864	SPZ	GMZ	Grassy Dry Forest	12 596
106	112	SPZ	SMZ	Powerful Owl & Sooty Owl habitat	3 758
107	187	SPZ	SMZ	Powerful Owl & Sooty Owl habitat	4 246
108	120	SPZ	GMZ	Rainforests Site of Significance - Regional	2 345
114	328	SPZ	SMZ	Powerful Owl & Spot-tailed Quoll habitat	7 080
130	307	SPZ	GMZ	Powerful Owl habitat	7 475
135	480	SPZ	GMZ	Undisturbed Lowland Forest	16 782
136	118	SPZ	GMZ	Lowland forest - inland example	3 390
139	615	SMZ	GMZ	Powerful Owl & Sooty Owl habitat	14 543
140	211	SMZ	GMZ	Rainforests Site of Significance - State	
142	566	SMZ	GMZ	Sooty Owl habitat	4 644
144	223	SPZ	SMZ	Powerful Owl habitat	11 252
145	366	SPZ	SMZ	Powerful Owl habitat	16 852
183	465	SPZ	GMZ	Old-growth Tableland Damp Forest	23 812
185	312	SPZ	GMZ	Old-growth Tableland Damp Forest	15 825

The key issues associated with the areas identified in Table 3.6 are:

Owl Sites - A number of areas identified above have been afforded SPZ or SMZ status in the Forest Management Plan on the basis of providing high quality habitat for Powerful, Sooty or Masked Owls. The owl management strategy for the region is directed to ensuring enough high quality habitat is provided across the region to maintain a target number of pairs for each species. In the scenarios presented any changes have been made in a manner which is consistent with the regional owl management strategy.

Geographic variation within Ecological Vegetation Classes. - This is a significant consideration in the development of a CAR reserve system. While some areas included in the SPZ are proposed to become GMZ, additional areas are being added to SPZ to meet the national reserve criteria.

Rainforests Sites of Significance - under the East Gippsland Forest Management Plan special protection is provided to significant rainforest stands. The protection ranges from enlarged buffers to protection of sub-catchments for the most significant areas. The level of protection generally increases with increasing significance (Regional, State, National) of the area.

In scenarios 2,3 & 4 some sub-catchment areas which include rainforest values would be made available for timber production, although the minimum standard for rainforest protection required by the Code of Forest Practices would remain.

Old-growth Forest - The East Gippsland Forest Management Plan includes a strategy for protection of old-growth forests. Some EVCs received levels of protection greater than is required by the national reserve criteria. Under scenarios 2,3 & 4 some of these would be made available for timber production.

3.4 IMPLICATIONS OF THE SCENARIOS

Environmental Implications

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 East Gippsland forests. The key features identified for each of the reserve scenarios provide an indication of the environmental implications of each scenario.

While the scenarios indicate possible broad changes to land status, the final tenures of any areas which might be added to the reserve system have not yet been considered. Therefore, in the tables provided, all proposed additions have been included in the SPZ A category for the purposes of this exercise. The final tenure of any areas to be added to the reserve system will depend on the boundaries of each area in relation to existing reserves, and the range of uses considered appropriate in each area.

Resource Implications

As noted above, the tenure of any areas proposed for addition to the reserve system in each scenario has not been considered. The Steering Committee welcomes 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 and mining development would be precluded from any areas added to the National and State Park system
- the scenarios may have some impact on the availability of forest areas currently used for firewood collection and other wood products, extractives (rock and gravel), apiculture and some recreational access depending on the final classification of each area.

The sustainable yield implications are identified in the key features for each scenario. The maximum impact occurs in scenario 4 with a reduction in sustainable yield of 0.8%.

An evaluation of scenario 4 was undertaken using a regional linear programming model of production forestry known as FORUM - Forest Resource Use Model. FORUM can be used to simulate the interactions between regional forest resources, wood based forest industries and final product markets using spatially disaggregated data (see Hansard, Dann, Stephens and Clark 1996). The impact of scenario 4, in the absence of any industry development scenarios, was estimated to result in a reduction of 5 direct and 4 indirect jobs across the region. The scenario is also estimated to result in a reduction in the net value of wood production of around \$0.5 million per year, or a fall of approximately \$1.2 million per year in the gross value of wood production over the next twenty years.

Scenarios with lower sustainable yield implications will generally result in lower employment and economic impacts and under the scenarios considered, any employment impacts would be dispersed across the region.

Even without further industry development, there would be a number of ways of managing the impacts of the reservation scenarios. However, there are opportunities for industry development which are likely to generate significant economic benefits for the region. These opportunities are discussed in Section 4.

4. FOREST INDUSTRY OPPORTUNITIES

The RFA cannot dictate the investment decisions to be taken by the forest industries. However, because the RFA will provide greater certainty of access to timber resources, it is useful to provide some indication of the industry development opportunities which might arise once an RFA is in place.

The sustainable yield for East Gippsland is 250,000m³ of D+ sawlogs per year. This is predicted to increase to approximately 455,500m³ from 2048 (an explanation of sawlog grades is provided in the Resource and Economics Report (EG CRA 1996b)). The annual yield for residual logs (those produced as a by-product of sawlog harvesting) has been forecast at 650,000m³. Detail of sustainable yield forecasts and allocations are provided in the Resource and Economics Report (EG CRA 1996b).

The Department of Natural Resources and Environment recently called for expressions of interest in the 800,000m³ of residual logs available each year from the East Gippsland and Tambo Forest Management Areas, of which 650,000m³ is proposed to be sourced from East Gippsland. The processing of this material has the potential to generate significant economic benefits through the use of a previously unutilised native forest resource.

As described in the Resource and Economics Report (EG CRA 1996b), the volume available is of sufficient size to support a range of internationally competitive wood processing activities. With current technology, these logs can be processed into a variety of products, including medium density fibreboard, laminated veneer lumber, plywood or smallwood products. This material may also be used for pulp and paper making activities, either domestically or overseas.

On this basis, an industry development scenario has been proposed in this report to allow consideration of the likely social, environmental and economic implications of selling this additional resource together with the thinning program. The scenario is:

- on-shore processing of approximately 400,000m³ per year to produce a reconstituted wood or wood-panel product after allowing five years to establish necessary processing facilities
- sale of the remaining 250,000m³ of residual logs for export woodchips.
- increasing the annual area available for thinning.

Processing facilities are assumed to be located in the region. The sale of the remaining residual logs does not preclude further domestic processing opportunities, however the most likely use of this component of the resource is export woodchip.

4.1 EMPLOYMENT IMPLICATIONS

The industry development scenario would provide directly for increased employment in harvesting and haulage, export woodchips, domestic processing and thinning. Additional employment would arise during the construction phase of domestic processing facilities and associated infrastructure, and from multiplier effects in the regional and state economies.

Information used to assess direct and indirect employment implications of the industry development scenario was obtained from existing sources, including the LCC 1985 socio-economic study of the region and McLennan and Gerardi (1995), as well as the 1996 sawmill survey undertaken as part of the Resources and Economics Report.

Timber harvesting and haulage

If the existing log volume to job ratio is applied to the increased volumes of residual logs available, the number of jobs in harvesting and haulage activities is expected to increase by 48 from 106 to 154. This estimate takes into account that current contractors are estimated to be working at 70% of capacity and that some residual log is currently utilised under short-term sales.

Export woodchips

Under the scenario, 650,000m³ of woodchips would be exported in the start-up phase of the first five years, reducing to approximately 250,000m³, when on-shore processing commences. This would create the following jobs outside the region (eg. Eden or Geelong export facilities):

- For the first 5 years, using a ratio of one job per 10,000m³ log, an estimated increase in employment of 65 people outside East Gippsland would occur.
- As domestic processing commenced this number of jobs would reduce to 25.

Domestic processing

As outlined above, a resource of residual log of the size available in East Gippsland could support a range of further processing industries in the region. The Australian Bureau of Agriculture and Resource Economics undertook an evaluation for the region using the example of a Medium Density Fibreboard (MDF) plant with an annual production of 150,000m³ of final product, equivalent to a residual log intake of 280,000m³ per annum. McLennan and Gerardi (1995) estimated that a facility with an annual production output of 130,000m³ of final product would create 108 jobs at full capacity. Using the example of an MDF facility with an annual capacity of 150,000m³ of final product, the estimated increase in the gross value of wood production after the five year start up phase is estimated at around \$100 million per year over the next twenty years, or an increase in the net value of wood production of around \$26.7 million per year. These estimates include the additional returns obtained from the domestic processing facility and the sale of the remaining residual logs as export woodchips.

The industry development scenario developed for this report is based on domestic processing of 400,000m³ of residual logs, rather than 280,000m³. Using a direct extrapolation of employment numbers the scenario would result in 154 additional jobs, rather than 108, although the number may be lower depending on the actual number and configuration of the further processing facilities, the arrangement of shifts/overtime and other such factors.

Thinning

The East Gippsland Forest Management Plan (DCNR 1995a) identified some 4,500 hectares of foothill mixed species forest in the region as being suitable for thinning over the next ten years. Currently, there is one thinning operation in East Gippsland, employing 5 people and thinning approximately 200 ha per annum. It is now estimated that there may be up to 13,500 ha of forest suitable for thinning in the region. There is therefore potential to expand the area of thinning carried out annually in the region to approximately 1500 ha and it is estimated that this could generate work for an additional five crews, or up to 25 people.

Summary of direct employment implications

The direct employment implications of the industry scenario are summarised below. It should be noted that employment numbers identified would not be immediate, rather they would build up over the first five years as additional harvesting commences. Construction jobs would be unlikely to commence until the last half of the first five years, given the need to undertake siting and feasibility studies.

Increase in employment over the first five years

- Harvesting and haulage: 48
- Thinning: 25
- Export 65
- **Total 138**

Continuing employment after five years

- Harvesting and haulage: 48
- Thinning: 25
- Domestic processing 154
- Export 25
- **Total 252**

Construction phase

A consultancy by McLennan and Gerardi (1995) estimated construction jobs associated with an MDF plant as 95 people directly employed for two years.

Multiplier effects

The most recent multipliers used in East Gippsland in predicting indirect employment are those used in the Land Conservation Council's 1985 socio-economic study of the region. Application of these multipliers suggests a flow-on-effect of employment to other community sectors such as government agencies and retail services, of approximately 255 jobs (38 from harvesting and hauling, 177 from domestic processing and 40 from thinnings operations). Flow-on jobs resulting from increased employment in harvesting and hauling would be spread across the region. Flow-on jobs from domestic processing and thinning operations would be confined to the Orbost and Cann River areas.

4.2 COMMUNITY AND SOCIAL IMPLICATIONS

The following implications are based upon the industry scenario described above using the findings of the East Gippsland Social Assessment Report.

Utilising 650,000m³ of Residual Log

Benefits

- Increase in employment as described above.
- Flow-on-effect of employment due to the inputs of services required from other businesses as well as the potential for job creation within community sectors such as government agencies, retail services etc.
- Greater economic benefit for the region generally and for regional centres such as Orbost as a result of increased disposable income.

- Ability of the retail sector to provide a greater range of goods in the major service centres.
- Possible opportunity for re-employment for people living within the region who are currently out of work, or a modest increase in population size from new arrivals.
- Greater ability to secure existing services and develop new services for the region eg. health, education, childcare and development.
- Increased sense of social and economic security and well being within the region.
- Ability to encourage, attract and develop new investment to the region.
- Potential increase in school student/teacher population subject to population increase as a result of new job opportunities.
- Possible contribution of infrastructure from forest related industries to recreation and tourism.
- Increase in regional vitality.

Costs

- Increased use of roads by forest industries.
- Potential for community conflict
- Perceived increase in environmental disturbance due to increased forest activities.

4.3 ENVIRONMENTAL IMPLICATIONS

Under the industry development scenario identified above there may be some additional environmental implications that need to be considered. These implications are related specifically to:

- the effect of removal of residual roundwood from within the logged coupe;
- the effect of thinning;
- the harvesting of coupes that may be uneconomic for sawlog-only logging; and
- impact of increased numbers of trucks on roads.

Two studies conducted by Victoria have provided information on the utilisation of residual logs from the forests of East Gippsland. The first report, Environment Effects Statement on Pulpwood Harvesting from State Forest in East Gippsland (FCV, 1981), was prepared in accordance with the State *Environment Effects Act 1978* and the *Environment Protection (Impact of Proposals) Act, 1974*. The second report, Value Adding Utilisation System (DCFL, 1988) (VAUS), examined integrated harvesting and the utilisation of residual roundwood following sawlog extraction. This report constituted an Environment Effects Statement in accordance with the State *Environment Effects Act 1978*. A range of silvicultural issues are being examined under the Silvicultural Systems Project (SSP) (DCE, 1992)

Impacts of forestry activities on flora and fauna are relatively well known and can be found in VAUS (DCFL, 1988), the Eden EIS (SF NSW, 1994) and the CRA reports (EG CRA 1996a-h).

The Victorian Code of Forest Practices (recently reviewed by CSIRO) was developed on the basis of the findings of the VAUS and SSP and was designed to minimise any impacts associated with both sawlog-only harvesting and integrated harvesting to remove both sawlogs and pulpwood. The implementation of the Code during the last six years, and the associated forest operator licensing system, has been closely monitored by a working group which comprises representatives of several key peak interest groups. Code implementation is now audited each year using a system of field survey and formal reporting.

The extensive reserve system, the East Gippsland Forest Management Plan (1995), the Victorian Codes of Practice (DCFL 1989, DCNR 1995b) for timber production and fire management and regional prescriptions provide the basis for ESFM in East Gippsland. The forest management and planning systems in place in Victoria have been studied in the ESFM report, details are provided in Section 2 of this report.

Effect of removing residual logs from within the logged coupe

As discussed in the Resource and Economics Report (EG CRA 1996b), the current management practices for regeneration in East Gippsland involve clearfelling and seedtree practices to provide optimal condition for forest regeneration and growth. The current silvicultural prescription requires the felling of all trees on a coupe not required under prescriptions for habitat value, and therefore, in the absence of a market for residual logs, trees not suitable for sawlog production are felled and burned at cost to NRE. In recognition of community views regarding the nature of this operation, a range of silvicultural issues are being examined under the Silvicultural Systems Project (SSP) (DCE, 1992). However, interim evaluation of results from SSP trials in East Gippsland have shown that, where timber production is a high priority, improved clearfelling and seedtree systems are likely to be the most appropriate. Other systems are being developed and may be suitable where specific flora, fauna, landscape, water or other values take precedence.

The VAUS (DCFL, 1988) and other studies indicate that the utilisation of residual logs through integrated harvesting may have some additional impacts over and above sawlog-only harvesting. The additional impact of collection of residual logs within a coupe is related to the collection, handling and loading of the material. Removal of additional logs has the potential to increase soil disturbance within coupes, but this increase can be minimised by limiting the number of additional snig tracks used over and above those which are required anyway for the purpose of sawlog removal, as prescribed in the Code of Forest Practice (DCNR, 1995b) and regional prescriptions.

The habitat of some ground-dwelling species may be affected by the removal of additional logs from the forest floor. These potential impacts are mitigated by extensive areas of habitat protected in existing conservation reserves and through the retained habitat system in State forest established by the Forest Management Plan (DCNR 1995a). In addition, there are mechanisms in place to identify the species that may be threatened and to implement measures for their protection.

Effect of Access into Coupes with Low Sawlog Volume

Sawlog-only harvesting is not currently considered economic in forest containing less than 15m³ of sawlogs per hectare. In addition, these forest types also produce a relatively large volume of residual logs that under constrained market conditions may not be utilised commercially. Under the Forest Management Plan (DCNR, 1995) the sustainable yield forecast for East Gippsland is contingent on access to these lower yielding areas. These are scheduled for production to progressively balance the overall distribution of harvesting through the range of different sawlog yielding stands.

The location of low sawlog volume forest can be estimated using data for compartment productivities presented in Map 2 of the Resources and Economics Report (EG CRA 1996b). Compartments likely to yield low sawlog volumes can occur in a range of forest types including types which are capable of producing high timber yields over the next rotation. Harvesting forests which are currently low sawlog-yielding may in the short term increase the total area harvested each year. However, in the longer term, as regrowth forests come on

stream, the area harvested to meet sustainable yield requirements will decrease. It is also important to note that all operations will be conducted in accordance with the Code of Forest Practices, regional prescriptions and commitments in the East Gippsland Forest Management Plan.

Effect of thinning operations

Thinning operations in regrowth forests involve the removal of a proportion of trees to increase growth of retained trees and sawlog production. Soil disturbance caused through thinning is significantly less than disturbance associated with sawlog harvesting operations, as thinning operations do not require extensive roading and are generally limited to areas with slopes generally $<18^{\circ}$. The site specific impacts of thinning are managed under the various planning mechanisms employed by NRE, particularly the Code of Forest Practices (DCNR, 1995b) and regional prescriptions.

The long term effect of thinning on forest structure will depend on factors such as frequency of other disturbance events, for example, sawlog harvesting and fire. It is likely that the structure of thinned forest will differ in some respects from surrounding unthinned areas. This would advantage some species and disadvantage others. Provided thinning is confined to relatively small areas it is unlikely to have overall adverse environmental effects.

Impact Of Increased Number Of Trucks On Roads

The movement of 650,000 tonnes of residual logs pa will result in additional impacts on roads in the region, with an estimated additional 26,500 truck loads of material being transported from the forests each year. The specific impacts on individual roads will depend on location of the processing facilities and the transport routes, however, there will be a range of general potential impacts common to all configurations.

A recent Timber Industry Road Evaluation Study (TIRES) (Sheldrick, 1995) prepared for North East Victoria indicates that increased road maintenance funding is needed to maintain road standards with increased timber traffic on roads. Increased traffic may also have an impact on the amenity of residents in towns in the region.

Increased use of unsealed roads can potentially have an impact on the amount of solid material carried into streams. Impacts depend to an extent on the quality to which forest roads are built and maintained. Prescriptions contained within the Code of Forest Practices (DCNR, 1995b) should minimise these impacts. The costs of building and maintaining forest roads for timber removal are funded directly through timber royalties received from industry. Increased activity from integrated harvesting will return increased roading revenue, commensurate with the additional cost of road usage.

The maintenance of local roads is funded by the East Gippsland Shire and the cost is borne by the East Gippsland community. However, the increased regional economic activity resulting from the development scenario outlined above, may provide opportunities for increased funding to the Shire for road maintenance.

Alternatives to the Industry Development Proposal

The alternative to this proposal is to continue sawlog harvesting operations without fully utilising the residual log resource. This would have negative consequences for the community in terms of future resource development foregone. Given the strong benefits to the community associated with the industry development proposal and the safeguards which are in place to protect the environment, the alternative of not fully utilising the residual log resource is not considered appropriate.

4.4 OTHER INDUSTRY DEVELOPMENT OPPORTUNITIES

It is evident from the social assessment process (refer to the Social Assessment Report, EG CRA 1996c) and subsequent discussions with stakeholders that the region has substantial potential to benefit from new initiatives which address social, economic and environmental sustainability.

An opportunity exists to consider the future of the East Gippsland region, with all its forests values and potential, under a wider theme than the forest industry. For example, consideration could be given to broadening the potential of the area under the banner of **‘Gateway to the Forests’**.

Plantations

A review of the potential for plantation development in the region is provided in the Resources and Economics Report (EG CRA 1996b). While there is no potential for development of plantations on Crown land in East Gippsland, there could be an increase in private plantations in the form of woodlots or agroforestry, with limited impact on environmental and conservation values. Two specific initiatives may facilitate such development:

- Removal of export controls on unprocessed plantation wood is being considered by the Commonwealth Government with respect to Victoria, subject to the results of a review of the relevant plantation code of practice
- Funding for plantations through the Commonwealth Department of Primary Industries and Energy ‘Farm Forestry Program’.
 - funding of \$1.1 million over 3 years will be provided to Gippsland Farm Plantations Incorporated for Gippsland, including East Gippsland.
 - further details of relevant programs are provided in Appendix C.

There is interest in Farm Forestry and Craft or Specialty Timber production and opportunities exist to develop new markets within the East Gippsland region. The Victorian Parliament is currently considering Forest Rights legislation to facilitate opportunities for investment in private plantations and farm forestry.

Mining

The minerals assessment (EG CRA 1996b) identified potential for a number of significant types of gold, base metal and other mineral deposits within East Gippsland. These occur in defined tracts throughout the region and are described and mapped in detail in this report. East Gippsland is underexplored compared with Victoria as a whole. The rock types, the age and geological structures in East Gippsland are similar to those which host major mineral deposits in other parts of Victoria and elsewhere. There are about 200 mineral occurrences,

deposits and old mines in East Gippsland. Current major mining activity is confined to the extraction of high grade limestone and construction materials. There is high potential for gold and base metals in the western part of the region and moderate potential for these metals over most of the remaining region.

Tourism

The outcomes of the Social Assessment Report highlight that stakeholders believe that both tourism and forestry would be the main industries in the area in the next 20 years and that there is substantial potential for the development of tourism within the region in conjunction with the timber industry. The Resource and Economics Report (EG CRA 1996b) examined growth and estimated value of the industry, and indicates that there is substantial unutilised potential for tourism under the existing land management arrangements.

There is a variety of tourist businesses currently operating within the East Gippsland region which lend themselves to be further developed and aligned with other major tourism programs within Victoria as a whole. Over and above this, some new initiatives specific to particular localities within the region need further encouragement to provide the confidence for local communities to develop their ideas.

The Commonwealth Department of Industry, Science and Tourism (DIST) is administering a two year \$10.4 million program to stimulate the tourism industry throughout rural and regional Australia. This will be targeted at the development of new tourism products and facilitates. Opportunities identified in the Buchan and Mallacoota areas may be assisted by this program. Further details will be available when guidelines for this program are developed by DIST.

There are a number of regional and statewide planning and regulatory mechanisms in place which are used to address issues concerned with the management of recreation and nature based tourism within State Forest. These include the East Gippsland Forest Management Plan and the Code of Forest Practice for Timber Production.

Other Local Industries

Within local communities, discussion is taking place which relates to the development of cottage industries. These include the production of native flowers, essential oils, bush tucker and local produce. In order for these industry opportunities to develop, continued attention to information sources and research and development funding is required.

5. 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 process of arriving at Regional Forest Agreements. 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* (EP(IP) Act)
- The *Australian Heritage Commission Act, 1975* (AHC Act)
- The *Endangered Species Protection Act, 1992* (ESP Act)
- The *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 legislative and administrative processes, including the East Gippsland Forest Management Plan (1995), and the application of various Codes of Practice and the *Land Conservation Act, 1970* (Vic), *The Forests Act, 1958* (Vic) and the *Flora and Fauna Guarantee Act 1988* (Vic).

5.1 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.

5.2 NATIONAL ESTATE OBLIGATIONS

The Australian Heritage Commission's 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 East Gippsland is described in the National Estate report (EG CRA 1996e). Information sufficient for interim listing of these places on the Register of the National Estate will be prepared prior to the signature of the RFA. Interim and final listing will take place after the RFA has been signed.

The conservation of national estate values in East Gippsland 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.

5.3 OBLIGATIONS FOR ENDANGERED SPECIES PROTECTION

The *Endangered Species Protection Act, 1992* provides a legislative 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. 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
- 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 Environment and Heritage report (EG CRA 1996d).

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

5.4 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.

The *World Heritage Properties Conservation Act* allows the Commonwealth to protect world heritage values through the prohibition of prescribed activities.

To fulfil obligations relating to World Heritage, the Commonwealth and Victorian Governments have developed a methodology for the assessment of world heritage values and

convened a World Heritage Expert Panel to provide advice on themes of outstanding universal value relevant to Australia's forested areas.

One of the themes identified by the Panel was 'Evolution of landforms, species and ecosystems under conditions of stress'. The Panel identified several sub-themes of outstanding universal value related to this theme. The sub-theme of *Eucalyptus*-dominated vegetation was identified as directly relevant to East Gippsland. A preliminary assessment of the temperate forest expression of the sub-theme will be undertaken prior to the signing of the East Gippsland RFA to provide a description of regional variation in *Eucalyptus* values within the region and to provide an understanding of the relationship between these values and the RFA's proposed tenure and management arrangements.

Additional assessment work to identify possible places in East Gippsland which might be the best global expression of the *Eucalyptus* sub-theme will be undertaken in a broader context after the RFA is signed.

6. ELEMENTS OF THE REGIONAL FOREST AGREEMENT

The Regional Forest Agreement (RFA) will be a document signed by the Prime Minister and the Premier of Victoria. It will outline the commitments that both governments agree to resource for forest conservation, forest use and development, and the development of those industries using the resources of the region's forests.

It will operate for a period of twenty years with provision for a review of performance against agreed commitments by both Governments every five years. The elements of the RFA are outlined below.

6.1 COMPREHENSIVE ADEQUATE AND REPRESENTATIVE RESERVE SYSTEM

- establish a comprehensive, adequate and representative reserve system for the region within an agreed timeframe; and
- describe the reserve system; and define priorities for research and management to ensure that values represented in the reserve system are maintained.

6.2 ECOLOGICALLY SUSTAINABLE FOREST MANAGEMENT PROCESSES

- the processes for the implementation, monitoring and auditing of management practices in order to safeguard environmental, heritage and cultural values;
- the priorities for the collection of additional and improved data through inventory and research;
- the priorities for the preparation of recovery plans and action statements for endangered flora and fauna species;
- the mechanisms for public involvement in forest management processes; and
- the mechanisms for improvement of management systems and processes.

6.3 FOREST AND INDUSTRY DEVELOPMENT OPTIONS

- resource certainty; and
- initiatives to encourage value-adding and increased domestic processing.

6.4 MONITORING AND REVIEW OF THE RFA

The RFA will identify performance indicators including milestones to measure the implementation of RFA commitments and monitoring arrangements to enable a detailed assessment and report on the indicators and the performance of the Agreement every five years. It will also identify a mechanism to enable updating of each RFA in light of significant new information or exceptional circumstances.

6.5 OTHER

The RFA may also address other issues raised in this report and/or that may arise during the public comment period that require the commitment of both governments to ensure their timely and effective implementation. The matter of legislating the RFA has been raised in discussions with the community and is being considered.

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APPENDIX A

ISSUES RAISED DURING WORKSHOPS IN SEPTEMBER 1996

The following notes summarise the issues, and areas of discussion, raised by participants in the series of consultative meetings/workshops held in East Gippsland and Melbourne during September 1996.

In addition to these issues, various areas were identified by stakeholders as requiring consideration in the development of RFA scenarios.

BENDOC

- Does the CRA address wider resource issues for example the relative competitiveness of a Pulp wood industry compared with a Hemp industry.
- Important to link the sale of plantation timbers to the overall strategy especially the long term considerations.
- The expected 20 year time frame for the RFA is too short for plantation security. Some sort of legislation to support the long term interests required - Right to Farm.
- Issue of complementary State/ Commonwealth legislation was raised. A change to the constitution was also raised.
- Land clearing issues were raised - is best linked to other processes such as the regional catchment strategy.
- Is funding likely to be available for new initiatives on private land (eg speciality timbers).
- Specialist timber plantations were discussed. The regional plantations committee being established will be followed up to determine what the situation is in East Gippsland. (It was considered 500 ha would be adequate for a pilot for a niche market in speciality timbers).
- Considered that the NSW CALM farm forestry leaflets were a good source of info for some aspects that could be picked up in the RFA.
- Issue of National Park boundaries and activities such as horse riding. Signage and associated incremental improvement in services to the parks were also raised.
- Vermin escaping from the parks
- The issue was raised about the comprehensive, adequate and representative reserve system and how the risk of reduction of old growth percentages through fire might be addressed. Will the park boundaries chase the old-growth following fire or what is the security level of the agreed park boundaries.
- Infrastructure issue with particular respect to roading for timber and community use. The issue of financial/ infrastructure support to the industry and financial return to the region from where the timber is derived.

CANN RIVER

- Criticism of Resource and Economics Report re the comprehensiveness of economic assessments made of the timber industry and other activities.
- A full Cost Benefit analysis of the issues especially the forestry industry is necessary. The costs to the community re support to timber industry was raised. Especially including the public sector costs in such an assessment.
- Currently the industry has difficulties re green scantling and kiln dried material. These have not been incorporated in the report and they should be addressed.

- The line of argument was directed toward determining the best use of the public forests resource and it was considered that the information in the report was not sufficient for this. Timber is only one forest industry the Resource and Economics report should consider which provides the best economic return.
- Lack of consideration of industry forecasts. There is a degree of published information on the status of the industry in the National and international perspectives that have not been included here. The future and visions for the industry not included in Resource and Economics report.
- The issue of cost /benefit of National Parks and other (comprehensive, adequate and representative) reserves was raised. If the above information was provided for the timber industry so should that information be provided for the conservation interests. An assessment of public sector costs etc be included.
- It was recognised that this was difficult information to obtain but that a simplistic economic argument could have been attempted in the Resource and Economics report.
- It was considered that the options should include a cost of management of the comprehensive, adequate and representative reserve system in the option to assist in the selection of options.
- Concern was raised about the likelihood of the process meeting its stipulated time frames - there are not that many weeks left in the year.
- Trade off re additional park areas to meet comprehensive, adequate and representative criteria. How about trading some areas back to the timber industry. Recognition that parks are legislated.
- Future population prediction, have these been taken in to consideration and are there provisions for future employment to be incorporated in the options that are developed.
- Provision of services by the local government. Has been a major restriction in recent years. eg park fencing and other service provision issues.
- Is the option of compatible legislation to substantiate the RFA a feasible way to go.
- Timber certification re sustainably harvested forests, accreditation should be an outcome of the RFA. Concern re loss of international markets as a result of non accreditation of our timber.
- Are communities likely to obtain any funds for community revival as a result of the forest agreements.

MALLACOOTA

- Private property, how it is addressed in the RFA.
- Vegetation clearance, how does this link to EVC % calculations.
- Sub regional differences in EVCs and OG etc are considered important to include in the RFA.
- Codes of Forest Practices - current and future what they are and their likely changes.
- Implementation and monitoring of the code is important.
- ESFM, what is the process, who is involved and how will it be incorporated into the RFA
- Cross state vegetation classification compatibility.
- Erskine Report re sedimentation and water quality in relation to cross border issues.
- Residual roundwood needs to be linked to determination of the fact it is a genuine by product. Especially the link to improvement of degenerated forest stands.
- Infrastructure and ecological consequences, especially roading.
- Substantiation of Sawlog driven industry - is the evidence there
- Monitoring/ adherence to codes of practice.
 - Incentives as mechanisms
 - Training as an important component, especially for forest workers

- Resources/ commercial structures required to be in place.
- If costs are covered then there should be no real issue re costs of infrastructure etc, as there is a concern, does that mean that the costs are not covered through the industry.
- Sawlog grade audit is an issue. Does this really mean what it says or infer an over reliance on pulpwood over sawlogs.
- Betka River Catchment - issues of water supply
- Head waters of the Stoney Peak Block were excluded from the DFA reserved areas.
- Lowland OG reservation issue is clearly important
- DCE Report 33 Flora and fauna report is an important document that has not been included.

ORBOST Meeting

- CFMEU began by withdrawing from the process with a prepared speech relating to the funding and level of consultation allowed in the process. Specifically there was a request for funding to maintain its involvement.
- Some apiarists considered that an understanding of the bee keeping industry is non existent in the team and there has been lack of consideration in the current processes for the industry. A proposal was that timber harvesting be excluded from west of the Snowy to the boundary of the FMA. Both north and south of the highway.
- Clarification of what was in an option, especially whether if there was a move away from the status quo of the FMP there would need to be compensation to those disadvantaged.
- Complementary legislation to support the preferred option was endorsed, this would raise credibility of the process which would be beneficial after there being many processes with out such a conclusion.
Resource security goes further than supply. It is also important in terms of employment security which also should be delivered. Timber workers fall through the cracks. Status quo was preferred.
- Issue of residual log utilisation to ensure best use of the resource is achieved and that there is not an issue of waste not being used.
- Incorporation of communities' future in the RFA is an essential component.
- Significant alteration of the SPZ configuration resulting in removal of resource would be of significant concern.
- There should be an option directed to increased timber supply.
- The 15% issue and the associated precedents both for the impact of achieving this in EG. What does it mean for other areas and States and in follow up if the other areas are not going to make it then why should EG.
- Discussion re IUCN 10% and what it covers and what time frame it refers to, especially compared with the JANIS 15% for Australia.
- Are world heritage issues significant and covered off in this region.
- Tourism Industry implications - proposition that tourism could contribute significantly to the SW of the FMA as there are many half day trips available in the region.
- Management of reserves, especially shut gates were considered a deterrent to tourism development.
- Recognition that tourism can go hand in hand with the timber industry was the flavour of the meeting. The issue of commercial utilisation of large areas of park (wilderness) was difficult and therefore a hindrance to the development of a tourist industry was raised.
- Resources for management of parks in the region was an important issue that should be considered in the options.
- Has the CRA process considered the results of the Tourism Infrastructure Audit report.
- Issues related to the LCC Marine and Coastal report were raised.

- Maintenance of the road network. Small rate base and industry and parks and potential tourism competing for its uses.
- Issue of adequate park funding to maintain the current road estate in the parks.
- Issue as to whether fauna issues raise constraints in addition to those flora % ones raised.
- Thinnings and their importance and their incorporation in the RFA.
- Wildfire
- Boundaries and policies with respect to suppression in various tenures.
- Salvage logging, what conditions and planning for this are incorporated in the RFA.
- Who decides what the answer is in the RFA. The flexibility in meeting the criteria, who determines when enough is enough.
- Export licence levels especially with regard to utilisation of the residual log resource.

BUCHAN

- The capacity of the existing resources of DNRE to implement the planning and management responsibilities was questioned. At the same time there was concern that there was “over regulation” of forest use.
- Sustainable yield in East Gippsland was raised in the context of management of forests to develop a viable “specialty” timber industry in the Region.
- This included some discussion on silvicultural practices to encourage regeneration of particular species such as ironbark and box species.
- Full utilisation of timber within coupes, such as silver wattle, was seen as a desirable objective.
- Silvicultural practices were also discussed in relation to the systems that would be applied in the General Management Zones (GMZs).
- The significance of the bee-keeping industry across Victoria was emphasised, saying that, while East Gippsland was a relatively small part of the whole, the industry produced an estimated \$30 million in honey and provided \$150 million in pollination services to the horticultural and orchard industries.
- Privatisation of reserves - such as Buchan Caves was raised as an issue. The principle of leasing out areas that could be managed to appropriate standards in a more cost effective manner by private concerns was discussed.
- The concept of “valuation” of forest uses, including conservation uses and tourism, was raised in the context of the range of uses that should be considered as part of the RFA process
 - this was particularly relevant to the tourism industry in Buchan
 - there was some concern that the current importance of the tourism industry to Buchan was understated in the CRA reports
 - a number of tourism operators identified a need for a range of forest areas of different structure (particularly old growth) reasonably close to Buchan to enable tours to be designed around them
 - any specific proposals for such areas were to be developed in consultation with, DNRE, Orbost
- Access to National parks for tourism operators was identified as an issue, with concern that tracks/roads were being closed to the public.
- The basis of the Reserve Criteria was discussed, noting that the Environment and Heritage report indicated that a large proportion were already met by the existing East Gippsland reserve system.
- Local issues such as comments on Wood Utilisation Plans (WUPs), and mistletoe infestations were raised but agreed to be discussed in a separate meeting.

ISSUES RAISED IN A SERIES OF MELBOURNE MEETINGS

- Wildlife corridors should be 500m wide - 200m core and 150m buffer either side of selective logging
- low production forests too intensively logged
- Sustainable Yield dictates forestry management
- The East Gippsland FMA too dependent on woodchips. What would happen if the price of woodchips dropped
- Problem with Timber Stand Improvement (particular fertilising and thinning in lowland and coastal areas) - no research to support practices or on what the possible environmental impacts might be.
- Lower intensity logging and/or decreased coupe size (ie: more patchy logging) would have less impact on biodiversity.
- Rotation period should be longer to better reflect growth period of the trees.
- No research on the impacts of logging eg: on aboreal mammals - pre-logging surveys are only inventory. It might be possible to use the Boola Boola forest to set up an appropriate survey test
- Threatened and endangered species work does not cover indicator species
- Some faunal tables in the Environment and Heritage report contradict the appendices, environmental strata are too broad and contradict the EVCs.
- The summary of the results of the questions on the impact of timber harvesting on the environment asked in the social assessment was inaccurate.
- The environmental impact of timber harvesting was simply not known, and therefore the impact on biodiversity could not be accurately predicted. Research in this area should be high priority and some current research could be better directed to this fundamental question. Reserves were not meant to be the only places where biodiversity was maintained.
- Concern was expressed that the Environment & Heritage report appeared to advocate listing of National estate places before the completion of the RFA
 - it was clarified that the RFA process was intended to complete the assessment of areas for National Estate purposes so that the process of listing could be undertaken as part of the RFA
- The significance of the timber industry to East Gippsland has been underestimated as a result of using information based on the East Gippsland Statistical Division rather than the specific RFA region.
- The Resource & Economic report was based on a 'snapshot' now, at the bottom of an economic cycle for the timber industry and didn't reflect the value at the top or middle of a cycle.
- The use of 'net economic benefit' of the timber industry in the Resource & Economic report was queried and suggested that total industry turnover, with a multiplier applied would be a more realistic reflection of the industry
 - it was also suggested that the economic value of the products of logs sourced from the Region, but processed elsewhere should have been included - with recognition that this could not be 'double-counted' in the next region.
- The contribution of managed forest to endangered species needs to be included in option development and the way in which endangered species issues are being dealt with in developing and implementing an RFA is not clear.
- Legislation was raised in the context of the provision of certainty
 - including some flexibility in the reserve system where new information became available.
 - or, compensation where there were no alternatives.

- The potential for legislated boundaries for ‘production forests’ needs to be considered as a means of further providing certainty.
- Several options that could be looked at were raised:
 - National Reserve criteria could be treated as the base case with some areas put into National Parks and some taken out where they are represented over the reserve criteria level.
 - an option based on the provision of 10% more resource could be examined, to see what reserve boundaries might look like
 - an estimation of the implementation of the Reserve Criteria in the ‘worst case’
- Region should be examined and the criteria applied in east Gippsland to that level so that East Gippsland is not penalised by being the first RFA to be completed and where the opportunity to meet the criteria is relatively good.
- Value-adding opportunities, particularly through marketing of ‘feature’ grade timber (kiln dried timber containing gum veins etc), should be supported.
- The development of specialty timber usage should be supported - noting that continuity and certainty of supply is a major factor restricting expansion.
- Further discussions in Melbourne are required to ensure the full range of stakeholders are consulted throughout the process.
- The development of a Victorian Stakeholder Reference Group to assist in the consistent development of RFAs across the State was raised
 - and suggested that the Catchment and Land Protection Boards could play an important role in the process of development and implementation of RFAs.
- The place of forest on private land needs to be clarified, particularly in respect to:
 - coverage by export licences
 - plantation establishment and harvesting
 - ESFM.
- What is happening with World Heritage
- Access to data
- Use of linear reserves to meet the reserve criteria
- employment and training opportunities for aboriginal members of the communities in park and forestry management
- access to traditional forest products
- Native Title
- timber market development and industry restructuring needs to be enhanced
- implementation of kiln drying needs to be sped up
- increase backing to industry oriented research
- land access for mineral exploration and mining

APPENDIX B

COMMUNITY ISSUES

During the RFA consultations, community members raised many issues outside the immediate scope of the RFA, particularly with regard to the provision of adequate services. These are detailed in the Social Assessment Report (July 1996) and in Appendix A. In response to these issues, the Forest Community Co-ordinator and Social Assessment Unit have identified the following range of programs that could be accessed to specifically address these concerns.

CountryLink. The COUNTRYLINK Program is a guide to major Commonwealth services and programs for people who live away from capital cities. Known as the *ÔRural BookÕ* it is intended as a reference tool to provide the public with information on a comprehensive range of Commonwealth programs relevant to such things as education, health and safety, communications and tourism. This is available through the Department of Primary Industries and Energy on 1800 026 222. Some of the programs within the current edition of this book are no longer operational. However, a new edition will be available later this year.

Rural Access Program (RAP). The Rural Access Program is an access and equity program designed to overcome the disadvantages faced by rural and remote communities in accessing social and community services. The program provides grants of up to \$ 30,000 for a maximum period of 12 months.

The objective of the Rural Access Program is to fund projects which will act as a catalyst for the community to develop projects or services that will be self-sufficient. Priority is given to those projects which provide new and innovative ways of dealing with the social problems faced by rural communities. Special consideration is given to projects which target potentially disadvantaged groups such as rural women, Aboriginal and Torres Strait Islander peoples, people from non-english speaking backgrounds and people with disabilities. The Rural Access Program is currently under review.

Rural Adjustment Scheme (RAS). The Rural Adjustment Scheme provides support to farm business enterprises to improve farm productivity, profitability and sustainability. Farmers in financial difficulty, without prospects for long-term profitability, are assisted to exit from the farm sector. Support may also be provided under the regional component of the Scheme to address regional adjustment matters. The Rural Adjustment Scheme is also currently under review.

National Landcare Program Funding (NLP) The NLP provides funding for community landcare groups and support to community activities. This includes regional/catchment based initiatives and property management planning. A publication of the National Landcare Program Compendium of Projects 1995-96 is available, a guide to all community group projects funded under the Land and water elements of the NLP 1983-1995/96.

Rebuilding Regional Australia Initiative (August, 1996). The rebuilding regional Australia initiative highlights the Government's priority on families and small business and is based on the need to encourage and enhance the development of regions. The Budget contains a number of important initiatives for regional Australia including:

- the Supermarket to Asia strategy to develop new markets for food exports;
- a \$1.6 million increase in assistance to isolated families under the Assistance for Isolated Children's Scheme;

- a cooperative joining venture to help rural and remote communities establish credit unions;
- an integrated shopfront for services provided by the Departments of Social Security and Employment, Education, Training and Youth Affairs;
- an information and counselling support service for families and young people;
- an enhanced focus on facilitating major projects in regions, including the establishment of a Ministerial Working Group on Regional Affairs;
- a \$20 million reduction in FBT on remote area housing.

Further initiatives in supporting regional people includes a recognition that a quarter of Australian small businesses operate in rural areas and that they are the key to jobs and prosperity. In addition, there are a range of environmental and natural resource program funding sources which are available.

Telecommunications. In relation to the development of new initiatives for East Gippsland it is important that infrastructure arrangements are considered. Currently, difficulty is experienced with regard to telecommunication services. This is especially the case in more isolated areas of the region, along with limited mobile phone range between centres. Upgrading of rural telephone exchanges is essential for developing businesses. Recent announcements by the Federal government will assist rural areas to gain equal access to high speed telecommunications. It is anticipated that 85% of rural exchanges will be converted to digital by December 1997, with the effect of completion of the digitisation program by December 1998. This will mean that business and domestic users will have access to a wide range of enhanced services such as:

- multiple phones and faxes on the one line;
- much faster faxes;
- fast EFTPOS links and purchasing services for business;
- fast access to the Internet for educational, cultural and information services;
- small screen video conferencing for video and home use;
- shared screen, so users at different locations can work on documents and diagrams together;
- virtual production groups, allowing people in different locations to collaborate and produce high fidelity sound, fast text and graphics.

This will ensure that Australians in regional and rural areas will have the same proportion of digital exchanges as city dwellers.

APPENDIX C

POTENTIAL ACCESS OR LINKAGE TO INDUSTRY PROGRAMS

During discussions with stakeholders and communities views were expressed regarding industry development opportunities and the measures needed to facilitate the development into areas of value-adding. As a consequence, in concluding the RFA, governments will examine the focus of the following programs and their application to East Gippsland.

Wood and Paper Industry Strategy (WAPIS)

WAPIS is a joint initiative of the Department of Industry, Science and Tourism (DIST) and the Department of Primary Energy and Industry (DPIE). The Strategy aims to encourage sustainable management and expansion of the resource base, increased investment in value added activity and the growth of internationally competitive enterprises. Elements of the package are:

Enterprise Improvement

Many small to medium sized firms in this sector are experiencing significant pressures to restructure and to become competitive, due to changing economic circumstances and government policies. Firms have access to a range of programmes to help them develop the skills to improve their operations and to manage change effectively. These include:

- . a range of enterprise improvement programmes delivered through AusIndustry. These include business planning, quality control, benchmarking and other generic activities designed to improve the management and decision making skills of a small to medium sized enterprise; and
- . financial support under WAPIS for specific enterprise improvement initiatives which meet the needs of a group of firms based in a region or covering a product sub-sector

Innovation

Measures to encourage firms to become more innovative will focus on research and development projects, proposals to encourage the adoption of best practice technology and management practices and activities which facilitate the transfer and uptake of technology. The approach adopted will be similar to that taken with enterprise improvement in that companies will continue to access generic schemes for those projects which principally focus on the needs of individual firms. In contrast, WAPIS funding through DIST will be available for projects which provide sector wide benefits.

The specific program elements are:

- . generic programmes such as the research and development programmes delivered through AusIndustry. This includes the GIRD Scheme, the START programme, the Technology Centres programme and the CRC scheme; and
- . funding under WAPIS for projects of broad relevance to this sector or subsectors which do not duplicate what is supported by other programmes and which will produce outcomes applicable to groups of companies, the industry as a whole or a specific region.

Forest Industry Structural Adjustment Package (FISAP)

The conclusion of the East Gippsland Regional Forest Agreement may result in changes in the characteristics of the East Gippsland native forest resource which is available to industry and a need for the industry to adjust its operations accordingly. The Commonwealth has in place a Forest Industry Structural Adjustment Package (FISAP) which is designed to assist workers and businesses in the native forest industry adjust to these changes. In particular, the FISAP aims to facilitate investment in the production of value added wood products and to ameliorate the immediate adjustment impacts on workers and business in the native forest industry.

The FISAP comprises four major elements namely, Rescheduling Assistance, Forest Industry Labour Adjustment Package, Restructuring Assistance and Business Exit Assistance. FISAP is available to businesses and workers, including the self-employed, which are directly affected by the outcomes of the Deferred Forest Agreements (DFAs) and/or Regional Forest Agreements (RFAs). In addition, businesses which can demonstrate that they receive greater than 50 per cent of their income from the direct supply of goods and services to the native forest industry and which have been rendered financially unviable as a result of the DFAs/RFAs may be eligible for Business Exit Assistance.

Of particular relevance to the concerns raised by stakeholders is the restructuring assistance.

This aims to facilitate investment by eligible businesses in the native forest industry with good prospects of long term viability and which may need to restructure in order to use a different forest resource or are willing to take up new value-adding opportunities within the native forest sector or elsewhere in the forest industry eg the softwoods sector.

The nature of the assistance available under the Commonwealth's FISAP to facilitate such investment is in the form of an interest subsidy of 50 per cent for five years up to a limit of \$250 000 on the interest payable on new loans. The draft Restructuring Assistance criteria and guidelines have been publicly circulated for comment.

At this stage Restructuring Assistance is not available in Victoria. The Commonwealth is currently discussing with relevant Victorian agencies possible options for the implementation of any such industry development assistance. If such assistance were to proceed, applications would need to be considered in a regional context and in light of resource and funds availability, and take into account other competing proposals.

APPENDIX D

A SUMMARY OF PROPOSED 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

The following summary is intended only as a guide to the reserve criteria. Readers are referred to the published reserve criteria paper which provides the full context for the information outlined below.

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% 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 (see Section 4).
- (2) Where forest ecosystems are recognised as vulnerable, then at least 60% of their remaining extent should be reserved. A vulnerable ecosystem is one which is:
 - i) approaching a reduction in areal extent of 70% 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% 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% 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.