

Victorian Rainforest Network

Submission II

Code of Forest Practices for Timber Production Review Process

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Summary - changes needed in Code and Rainforest Action Statement

Below is a summary of the changes needed in the proposed Code and Rainforest Action Statement.

1. The final intended management action in the proposed rainforest Action Statement must be re-worded to say:

An independent and transparent planning and management process will be conducted to determine 'appropriate protection' for all rainforest sites of significance in State Forest. Until this independent review is completed all logging will be halted within RSOS.

For each RSOS, the independent review would:

- Review the process for deciding the way RSOS are managed and protected
- Made recommendations on the appropriate long term level of protection through prescriptions and/or permanent reservation

2. The final Action Statement must be made publicly available (but without the final approval of the Director General) at the same time the Code is tabled in Parliament.

3. Ensure that small patches of rainforest under 0.4 ha have buffer protection.

4. In all stands of rainforest, regardless of size, where Nothofagus exceeds 20% canopy there should be a 60 metre buffer to protect against myrtle wilt.

5. There must be buffering for all stands of rainforest to comply with the mandatory action outlined on page 40 of the Code.

6. Mixed forest aggregation issues

- If a combination of rainforest and mixed forest make up 1ha then a buffer should be applied.
- All mixed forests around rainforest stands of 0.2 ha or larger must be protected.

7. The Intended Management Action within the rainforest Action Statement must provide a fixed time line to get the mapping completed for Central Highlands mixed forest.

8. The Code review process must defer any decision that allows cable logging over 30 degrees until such time as more information about its impacts is made available to the public and further public discussion is facilitated.

Introduction

The Victorian Rainforest Network (VRN) is an independent and politically unaligned network of rainforest enthusiasts, researchers and activists with a shared interest in rainforest conservation and education across Victoria.

The primary aim of VRN is to secure the effective conservation of rainforests on public land throughout Victoria by ensuring rainforests are adequately identified and protected from logging practices by appropriate buffers and or by permanent reservation.

In October 2005, VRN provided a preliminary submission that commented specifically on the rainforest section 2.3.7 of the 1996 Code of forest practice for timber production. This submission along with the October 2005 VRN submission (see appendix D) are both presented to the Victorian government as a part of the Code submission period provided by Part 5 of the Conservation Forests and Lands Act 1987.

This submission has three parts.

- **Part 1** is a comprehensive discussion to justify changes required to the “Rainforest Sites of Significance” section of Rainforest Action Statement (provided in attachment 1 of the draft Code).
- **Part 2** is a comprehensive discussion of the general rainforest issues in attachment 1 of the draft Code.
- **Part 3** deals specifically with the proposal to allow cable logging over 30 degrees.

1 Part One: Sites of significance for rainforest

1.1 National Sites

The intention to provide sub-catchment protection for core areas within National Sites of Significance for Rainforest is a welcome improvement (on current practice) and bringing the management of such areas closer to the original intent of the 1996 Code and previous CSIRO code review recommendations for nationally significant stands of rainforest. (See section 2 of Appendix D)

Also, the current proposal to increase buffers to a sub-catchment level in ten rainforest sites of significance in East Gippsland which will remove approximately 480ha of forest from logging is a welcome improvement. It is estimated this will affect 5 logging coupes currently on the current logging schedule for the 2006/07 logging season. It is assumed that logging will not proceed in these coupes.

Mapping has been provided by DSE to VRN to show the location of the 10 national RSOS however at the time of writing this submission mapping has not been provided to show if the two national RSOS in the Central Highlands within state forest will be affected, this is despite a specific request for this information from DSE during the consultation period.

Additionally, the process for determination of core rainforest areas and the level of protection provided has never been made public and transparent despite a requirement for this disclosure in the East Gippsland Forest Management Plan (See below). Hence it is not clear if all rainforest within the National Sites will be included within the 480 ha.

So although this is an important conservation gain with respect to the protection of National sites, there remains a fundamental issue about the lack of a transparent and independent assessment of all the RSOS (including national sites) to determine how these important ecological environments are to be managed and protected.

1.2 State and Regional Sites

The most controversial wording within attachment 1 for the proposed draft Code for the draft rainforest Action Statement is:

As part of detailed forest management planning, further protection has been considered for rainforest stands within sites of state or regional significance, where the values of these stands warrant such protection.

This submission exposes how the process to determine “*further protection*” for RSOS “*where the values of these stands warrant such protection*” has not been independent, objective, made transparent to the community and is in breach of practically all public land rainforest planning processes and government policies.

It appears to VRN that at best, the process to determine “*further protection*” for RSOS has been totally compromised and corrupted by forces aligned with the native forest logging industry which have sought to minimise and/or frustrate the process that determined the levels of rainforest protection in bid to maximise areas where logging can occur.

Hence the above proposed statement for the rainforest Action Statement is far from honest. The government cannot claim or expect the community to believe that RSOS in Victoria are appropriately protected at a landscape level.

1.3 Victorian Government RSOS policy

What VRN is disputing is the way RSOS sites in Victorian State forest are managed and protected.

Over the past twenty years the Victorian government's approach to rainforest sites of significance can be divided into three stages:

- 1986 – 1992 Objective process set up
- 1992 – 1999 Bias towards forestry take over
- 2000 - 2006 Government makes progress to correct past wrongs

1.3.1 1986 to 1992: Objective process set up

The process to create and protect rainforest SOS began two decades ago in 1986. Back then there was little knowledge about Victoria's rainforest estate. Basic rainforest information was required.

In 1980's an objective RSOS process was set up under ALP government to locate, identify and rate sites and put then determine appropriate protection.

Commonwealth Government contribute funding for rainforest research and conservation through the National Rainforest Conservation Program.

It was government policy to undertake a state-wide rainforest survey that would identify and classify areas of rainforest, give the rainforest areas a priority rating and then determine an appropriate level of protection.

It was always the intention of the ALP Kirner government that an objective, non-biased process be used to determine protection strategies for Victorian rainforest on landscape, regional and local levels.

The process was as follows.

1.3.1.1 1986 Timber Industry Strategy

The August 1986 *Timber Industry Strategy* (page 41) required a logging ban in sites of significance. It states that:

Exclusion of specified uses from sites and areas of highest conservation significance.

1.3.1.2 1986 Land Conservation Council

The Lands Conservation Council was set up as an independent and autonomous organisation to make recommendations based on public input regarding the appropriate use of Victorian public land at a landscape level.

In December 1986, the Land Conservation Council (LCC) published the *East Gippsland Area Review, Final Recommendations*. **Recommendation E15** makes it clear that rainforest in East Gippsland “*be permanently protected according to a procedure to be established by the Council in a future investigation of rainforest*”.

In fact it was the LCC intention to do a review of all rainforest SOS in Victoria:

The council will be conducting an investigation of rainforest in Victoria with a view to making recommendations on the range of uses for them and the way in which they should be protected thought reservation. The rainforest in East Gippsland will be included in that investigation. Information collected by the Department of Conservation, Forests and Lands will provide a basic and important input. (LCC 1986, page 78.)

This independent study never occurred.

1.3.1.3 1987 State Conservation Strategy

The State Conservation Strategy (1987) clarified what the levels of protection should be for sites of significance. The Strategy states that:

The Government will complete surveys of all sites or areas of ecological or scientific significance in the State and will take protective measures where appropriate. As a general rule, those sites significant at the State level or above will be preserved for nature conservation purposes and sites of regional or local significance will be protected wherever possible.

1.3.1.4 1987 Victoria's Rainforests 'an Overview'

The *Victoria's Rainforests 'an Overview'* (1987) report points made the point that previous LCC studies (prior to 1987) had already reserved many significant rainforest areas; however the state-wide rainforest survey may find more areas that need to be permanently reserved.

It is considered likely that most of the larger areas of rainforest with significant natural values are already within some form of legal reserve following Government decisions on Land Conservation Council recommendations, and that representative samples of the different types are already reserved. However, the survey described in the previous section may identify more occurrences which merit reservation or which would improve representativeness. Any such areas will be managed as Sites of Botanical Significance, in accordance with the Government's Timber Industry Strategy and the Code of Forest Practices for Timber Production, pending a review of land use. (Page 14)

1.3.1.5 1990 Proposed Sites of Significance

In 1990, a memorandum was written by Department of Conservation and Forests rainforest expert, David Cameron titled: *Timber Harvesting Within Sites of Significance for rainforest*, (see Attachment 1 of this submission). This advised that logging must be excluded from sites of State and National Significance in line with existing government policy.

Cameron referred to the LCC commitment to decide how RSOS should be protected:

It is inevitable that sites of significance identified in this project, and the values associated with them, will form the focus of the Council's (LCC) special investigation into the conservation status of Victorian rainforests and the adequacy of their representation within the current reserve system. Failure to protect sites of significance for rainforest from harvesting in the interim is likely to be seen as pre-empting the outcome of each of these investigations. (See page 8 of Attachment 1)

1.3.1.6 1992 Flora and Fauna Guarantee Act

In 1992, Cool Temperate Rainforest was listed as a threatened community under the Flora and Fauna Guarantee Act for which the legislation requires an Action Statement to be created "*as soon as possible*" which will provide the prescriptions to protect against logging practices.

However, that fact it is taken almost 15 years for this to occur, reinforces a community perception that the long delay was due to a bias within government departments which wanted to maintain logging within objectively determined rainforest buffers for as long as possible.

1.3.2 1992 to 1999: Bias towards forestry takes over

Cameron (1990) was wrong with the assumption that it was inevitable that the LCC would conduct a state-wide review on the protection levels for rainforest. (See section 1.3.1.5)

As it turned out, in 1992 there was a change in government to the Liberal Kennett Government which resulted in the demise of the LCC and its eventual scrapping in 1997. The LCC demise allowed those in the department with a bias towards logging to change the direction of the government's RSOS rainforest policies.

The following describes this logging bias distortion.

1.3.2.1 Otways

The 1992 Otways Forest Management Plan was the first to be released. This FMP was so flawed in the treatment and protection of rainforest that the result was determined community protests and lobbying against native forest logging near rainforest. All ten Otway RSOS have now been incorporated into the Great Otway National Park in 2005.

1.3.2.2 East Gippsland

In 1993 the Department of Conservation and Natural Resources wrote an unpublished report titled: *Prescriptions government timber harvesting and related forestry activities within sites of biological significance for rainforest*. This advised that the best protection for all RSOS is to exclude all logging from within the catchment or sub-catchments areas. This was abandoned during the formulation of the East Gippsland Forest Management Plans. Instead a sliding scale/priority system was adopted, which offered less (compromised) protection for sites of local, regional or state sites of significance.

For East Gippsland, the conservation of all rainforest SOS within State Forest was done as a part of the Forest Management Plan and is based on an unpublished 1994 Conservation & Natural Resources report titled: *East Gippsland Forest Management Plan Discussion Paper No.18. Rainforest conservation in East Gippsland*. (See Attachment 2.)

1.3.2.2.1 East Gippsland Departmental Forest Management Area Planners

The process to determine RSOS protection levels was controlled by an 'in-house' Departmental Forest Management Area Planning team. Their CNR 1994 report acknowledges that a departmental process was conducted rather than a transparent independent inquiry.

The LCC 1986 state that rainforest occurring in State Forest should be conserved by buffers and that "permanent protection be provided by a procedure to be established by the council in a future investigation of rainforest." A procedure for defining and applying buffers has been devised by the department but the "future investigation" has not eventuated. (CNR 1994 Page 4 Attachment 2).

The sliding scale system to prioritise rainforest management is based on identifying core areas of rainforest within RSOS that require protection. However rather than an objective transparent process, it was the Departmental Forest Management Area Planning team who strongly influenced the "acceptable balance" between timber production and conservation of rainforest within State Forest.

The 1994 unpublished CRN report states (page 10 attachment 2):

It should be stressed that it is unlikely all core zones will be included in the Special Protection Zone. The final decision on areas included will depend on achieving an accepted balance between timber production and conservation in State Forest. However identification and prioritisation of core zones will facilitate choices to be made. (CNR 1994 Page 10 Attachment 2).

The compromising sliding scale rules (with a bias for timber resource maximisation) used for RSOS protection in the East Gippsland FMP are listed in Appendix B.

1.3.2.2.2 1995 Burgman rainforest report

A few months before the East Gippsland Forest Management Plan was released in 1995, a report by Mark Burgman titled: *Rainforests in Victoria - a review of the Scientific basis of current and proposed protection measures* commented extensively on the management of RSOS in Victoria with a focus on East Gippsland.

Burgman made the point that at a landscape level, an adequate representation of RSOS communities and appropriate protection system was not fully in place for rainforest in Victoria (Burgman page 59).

Burgman went on to explain that to effectively protect rainforest, the process to develop an adequate protection system should firstly involve a LCC study followed by a FMP and then prescriptions within the Code of Forest Practices (Burgman page 59). This was the original intention of the Government process set in the 1980's (see section 1.3.1).

Burgman was well aware that the LCC process had not occurred and was concerned that forest planning would not address the protection of RSOS at a landscapes level. This would result in further RSOS areas not being reserved. (See Burgman page 60.)

Burgman specifically recommended:

that planning for rainforest protection address both landscape and sites specific management perspectives” and to “develop protection strategies at a landscape level before proceeding to evaluate protection measures for individual stands and sub-catchments. (See Burgman page 60.)

Instead the Departmental Forest Management Area Planners set their own rules based on maximising timber resources and deviated from a transparent objective process. This is acknowledged in the CNR (1994) report which states:

The FMP process is clearly the most appropriate mechanism for addressing most of the unresolved concerns over rainforest conservation in East Gippsland. (CNR 1994 Page 5 Attachment 2).

Here lies the fundamental contradiction between the Departmental Forest Management Area Planning team arguing the Forest Management Plan is the most appropriate process and an independent rainforest expert Professor Mark Burgman advising that a landscape level study first needs to be done.

1.3.2.2.3 Integrity of East Gippsland Forest Management Area Planners (Case Study)

Burgman made the point that the lack of an LCC study meant that the Departmental Forest Management Area Planning team was now responsible for doing he right thing.

In East Gippsland, the LCC review (*back in 1986*) did not have the benefit of detailed floristic information upon which to base the assessment of the use and protection of rainforest. The Forest Management Area Planners now have this information at their disposal, placing a special responsibility on them to take this fact into account. (Burgman Page 60)

As refereed to above, the compromising sliding scale rules (with a bias for timber resource maximisation) were determined for RSOS protection in the East Gippsland FMP. These rules are listed in Appendix B.

When VRN obtained a copy of the 1994 CNR Discussion paper, there was also a memo from Brian Thompson (*17/91/4103 dated 9 April, 1994*) with a list of the FMA planning team who were making the decisions about protection levels for East Gippsland RSOS. (See Attachment 2, first page)

On this team were R. Rawson, G. Squires, D. Thomson, P. Sheehan, M.Kitchell, D. Parkes, D. Cameron, W. Peel, P. Fagg, T. Bartlett, K. Wareing, D. Holmes, A. Maclean, K. Rumba, R. Penny, R. Gisjbers, and P. McHugh

Members of VRN have had past dealings and conflict regarding forest nature conservation issues on public land with several of these former FMA team members over the past decade, including:

- R. Rawson
- G. Squires
- A. Maclean
- P. McHugh

There is no way it could ever be argued that these FMA team members do not have a bias towards the native forest logging industry and would have made objective decisions in the best interest of rainforest conservation.

Case Study: G Squires

The following is a case study which demonstrates how inappropriate it was back in 1994 to allow Mr Squires on the Department EG FMA planning team influencing decisions about the levels of protection for RSOS in East Gippsland.

The lack of an LCC study resulted in decisions to allow logging occurring within the Little Goolengook National RSOS in East Gippsland.

In 1997 protestors in the Goolengook areas were protesting against logging, including logging within the Little Goolengook National RSOS.

(Note: Foresters were also ignoring the 1996 Code prescriptions in favour of the East Gippsland Forest Management Plan prescriptions. In 2006, the revised Code now proposes to include some of the 1997 area logged at Goolengook within the sub-catchment buffer areas for the Little Goolengook National RSOS.)

In 1997, the Department of Natural Resources and Environment's Gippsland regional manager, Mr Garry Squires and a big supporter of native forest logging in East Gippsland made the following public comments towards the protestors.

THREATS CLAIMED IN FOREST DISPUTE

By Tim Winkler, environment reporter (article)

The Age 21/8/97 Page A8

The Goolengook area was remote bushland and the department was not prepared to put its staff at risk, Mr Squires said. Logging in the area was continuing and, with more than 1000 hectares available for harvesting in the area, clear-felling would continue for the foreseeable future. *"Logging is delayed for about three to four hours each day and they're proceeding at a much reduced rate. What we don't like is that really the protestors have got a problem with, if you like, Government decisions but they're targeting the working man,"* Mr Squires said.

Mr Squires was attacking conservationists for trying to stop logging in a National RSOS when he was involved a the planning team that influenced the *"Government decisions"* to allow logging to occur in that exact RSOS location.

Profit from logging RSOS

Some time after 1997, Mr Squires left the department and became involved in AHF Pty Ltd, a timber harvesting and carting operation based in Orbost. Mr Squires was now in a position to profit personally from any logging sanctioned by the government within East Gippsland RSOS, a process he may have influenced.

In 2004, Mr Squires provided advice on the Safety on Public Land Bill, where he is quoted by a National Party MP in Hansard extensively about the use of this legislation to stop people who protest against native forest logging, including protests in high conservation areas such as RSOS. Mr Squires is quotes as saying *"The General thrust of the legislation is good"*. (See Hansard December 17, 2004 page 2363).

Given Mr Squires has already acknowledged publicly that “*government decisions*” resulted in protests at RSOS in Goolengook, it would be outrageous for the government to use the *Safety on Public Land Bill* against protestors protesting about a potentially past corrupted planning processes.

VRN acknowledges and respects that Mr Squires is entitled to his views and opinions however the fact he may have been allowed to influence government decisions that he himself believes contributed to protests, calls into question the integrity of the 1994 Department FMA planning team.

1.3.2.3 No public accountability for RSOS management processes used

Burgman recommended that there should be total public transparency regarding the decision to protect and manage RSOS. (See Burgman pages 57, 58 recommendation).

Recommendations

Note in Forest Management Area Plans a summary of and Departmental file sources for the advice on rainforest protection received by planners. Provide details of compromises in terms of costs to all forest values.

Appendix A has two lists of reports that acknowledge

- i> the needs for an independent process and
- ii> the need for transparency.

The government has totally failed to undertake these requirements as demonstrated by the following.

1.3.2.3.1 EG FMP

A requirement of the 1995 East Gippsland Forest Management Plan is to make publicly transparent the sliding scale process for RSOS protection. The East Gippsland Forest Management Plan states :

Action: Reports will be published that document Sites of Significance for Rainforest, core areas within these sites and the process for deciding the management.(page 19)

However the 2002/03 Forest Management Plan annual report lists progress regarding the release of this report as:

Not started – liaison with Flora and Fauna and funding required.

After a decade, the public is still in the dark about what actually happened. Is it the Department is trying to cover up a poor process by giving transparency no priority? Certainly the government is guilty of breaching the East Gippsland Forest Management Plan by taking over a decade to meet its obligations.

1.3.2.3.2 Central Highlands FMP

There appears to be a lack of consistency regarding the protection of RSOS across Victoria.

The sliding scale rules (with a bias for timber resource maximisation) were used for RSOS protection in both East Gippsland and the Central Highlands FMP's.

A comparison between the two sliding scale systems shown in Appendix B indicate the protection system for the Central Highlands may be better than the one for East Gippsland given there is more detail provided in the Central Highland Forest Management Plan. However the public really does not know which system is better or if any of these protection systems are adequate.

1.3.2.3.3 Regional Forest Agreement(RFA) process

In Attachment 1 of both the East Gippsland and Central Highlands RFA's there is a requirement that a rainforest technical report will be published that will include how RSOS are managed (See Appendix C).

However according to the 2002 Victorian RFA annual report this technical report was completed in 1998. So why is there a contradiction between the Forest Management Plan annual report and the RFA annual report?

DSE has informed VRN that the January 1999 Peel report titled: *Rainforest and Temperate Mixed Forests of Victoria* was passed off to be this technical report.

However there is no discussion in the Peel report about buffers or how RSOS should be managed, a requirement of the RFA. Peel basically piecemeal reviewed all the original ratings conducted by David Cameron for all the RSOS across the state. Hence it is blatantly wrong for the RFA process to claim that the rainforest technical reports referred to in the agreements have been done. (See Appendix C).

VRN has the view that in late 1990's the Federal and State governments were in hurry to get the Victorian RFA's completed and legislated but did not want attention on how the RSOS are managed. Hence lies have been told and accepted by both levels of government to get the RFA process concluded.

1.3.3 1999 to 2006: progress towards resolution of RSOS issues

VRN wished to formally acknowledge that with the election of the Bracks ALP government in 1999, there has been a positive turn-around for the management of public land forests. The first positive was the creation of the Victorian Environment Assessment Council to replace the former LCC, abolished by the former government.

The Bracks ALP State Government has also been making good progress towards resolution to the RSOS issues in some areas. The main achievements to date include:

- All ten Otway RSOS being placed within the Great Otway National Park in 2005.
- The decision to refer the Goolengook Block to a VEAC study will mean three RSOS in East Gippsland will be independently assessed for both their nature conservation values and required level of protection.
- The proposed changes within the draft Code will provide mandatory sub-catchment protection of core area of national RSOS.

1.4 Implications for past and future breaches to State Government RSOS policy

Past failure by the State government to implement its policy to adequately protect rainforest has resulted in logging occurring in places that have put rainforest at risk.

For example the 2006 draft Code acknowledges that it “*removes confusion that was inadvertently created by the 1996 Code*”. This “*confusion*” allowed logging within a 480 ha area sub-catchment buffer areas and logging within a national RSOS in the Otways. Some of these areas logged include places where very bitter confrontations occurred between conservationists and the native forest logging industry over protection of rainforest. They include protests in East Gippsland at Dingo Creek in 2001 and Goolengook in 2002, and protests at Ciancio Creek in the Otways in 2001.

For example, in 2001 people were charged with obstructing logging at Ciancio Creek in the Otways and Dingo creek in East Gippsland. However in the courts, logging was found to be illegal as it breached the Code of Forest Practices rainforest prescription. Hence the charges were dropped. The government spend a considerable amount of money fighting court cases and failed.

It follows from the conservation and the general public’s perspectives that logging and associated conflict would have never occurred in these areas if an independent process by the LCC or similar organisation had occurred years ago to determine appropriate permanent protection levels.

There is every reason to expect such protest and conflict will continue if the government does not set up a process to objectively address the protection issue for all Rainforest Sites of Significance.

1.5 Rainforest Action Statement wording

VRN recommends the following words be used in the “Sites of Significance for Rainforest” section of the Rainforest Action Statement highlighting the need for an independent review of RSOS management on public land in Victoria.

The final intended management action in the proposed rainforest Action Statement must be re-worded to say:

An independent and transparent planning and management process will be conducted to determine ‘appropriate protection’ for all rainforest sites of significance in State Forest. Until this independent review is completed all logging will be halted within RSOS.

For each RSOS the independent review would:

- review the process for deciding the way RSOS are managed and protected
- made recommendations on the appropriate long term level of protection through prescriptions and/or permanent reservation

The Rainforest Action Statement must set a deadline for such an independent inquiry to occur. VRN believes this should be started within the first six months of 2007.

2 Part Two: General Comments on Rainforest

VRN strongly agrees with the approach and wording for the Conservation of Biodiversity for Public and Private Land written up in section 2.4.2 of the draft Code.

2.1 Code link to Rainforest Action Statement

VRN agrees with the concept of referring protective prescription for rainforest to the rainforest Action Statement for public land and private land except with one major reservation. That reservation being that the fundamental Code review process of 'transparency' must be maintained.

The final Rainforest Action Statement must not be released before the Code is released. Both the Code and final Rainforest Action Statement must be released at the same time.

This is the intent of the Conservation Forests and Lands Act, Section 36 'Incorporated material to be table'. Hence the final Action Statement must be made publicly available (but without the final approval of the Director General) when the Code is tabled in Parliament. This is so any outstanding issues within the Action Statement can still be addressed as the Code goes through the parliamentary process.

VRN does not want the moving of the rainforest rules to the Action Statement to be used as an opportunity to subvert the intent of the Act to allow the public and parliament the opportunity to see and comment on the rules for rainforest protection within the final Rainforest Action Statement.

2.2 Welcome rainforest specifics

Overall VRN is happy about most of the proposed changes to the Code regarding rainforest protection provided in Attachment 1 – *Harvesting Prescriptions for Rainforest and Cool Temperate Mixed Forest Action Statement*.

VRN welcomes the proposed improved rainforest identification and buffers rules which include:

- Minimum area for recognition as 0.1 Ha, which addresses VRN concerns outlined in the preliminary VRN submission (See Section 3.2 of Appendix D).
- The new 'aggregation of stands of rainforest' rules for rainforest, however aggregation rules should also apply for mixed forests. (See Section 2.4 of this submission).
- The 'Fields recognition and delineation' rules.
- The new rules to increase all buffers to 60 metres for Nothofagus-dominated cool temperate rainforest to standardise the protection against Myrtle Wilt. (See Section 2 of Appendix D). VRN welcomes the addition of 700 ha of forest, mainly in the Central Highlands which will be included within rainforest buffers.
- Regeneration burning rules designed to keep fire away from rainforest stands.
- Rules to keep roading away from rainforest stands.

2.3 Outstanding issues regarding small (0.1-0.4 ha) rainforest buffers rules.

VRN still has concerns about the lack of buffer protection for small patches of rainforest under 0.4 ha.

2.3.1 Myrtle wilt and the 60 metre buffer.

In all stands of rainforest, regardless of size, where *Nothofagus* exceeds 20% canopy there should be a 60 metre buffer to protect against myrtle wilt.

There is an ambiguity between the “Small stands” and “Myrtle Wilt” sections of attachment 1 of the Draft Code. The proposed wording under “Myrtle Wilt” in attachment 1 of the Draft Code sets out a 60 metre buffer for all rainforest stands exceeding 20% *Nothofagus*, to protect against myrtle wilt. This should be referred to in the “Small stands” section so that it is explicit that, in the case of rainforest with Myrtle Beech, the 60 metre buffer is applied.

Given myrtle wilt is listed as a threatening process under the Flora and Fauna Guarantee Act, the criteria under the “Myrtle Wilt” section should be the criteria regardless of rainforest size.

2.3.2 Buffers for all small rainforest stands

There must be buffering for all stands of rainforest.

The proposed minimum buffers (40 metres for stands exceeding 0.4 ha and only 20 metres buffers for linear 0.2 to 0.4 ha strips) is pretty much the status quo for East Gippsland.

The proposal not to have a buffer for linear stands of less than 0.2 ha or for non-linear stands of less than 0.4 ha is undoubtedly not acceptable, considering the clear mandatory action on page 40 of the draft Code that requires that all rainforest stands must get a buffer.

Rainforest stands in Victoria must not be harvested. Rainforest stands must be protected from the impacts of harvesting through the use of appropriate buffers to maintain microclimatic conditions and protect from disease and disturbance.

VRN strongly supports this statement.

The “small stands” section in Attachment 1 of the draft Code fails to apply buffers to all rainforest stands between 0.1 and 0.4 ha. Hence to comply with the mandatory action outlined on page 40 of the Code there must be “appropriate buffers” to protected small stands from the impacts of logging practices. VRN believes that a buffer of at least 20 metres is appropriate.

2.4 Mixed Forests

2.4.1 Definition

VRN raised the issue about the inconsistencies between the 1996 Code definition for rainforests which excluded a definition for mixed forests and the Scientific Advisory Committee 1992 definition of rainforest, which included a definition for mixed forests. (See Section 3.1 of Appendix D)

VRN supports the mixed forest definition and the inclusion of the acknowledgment that the eucalypt canopy may be of any age for mixed forests.

2.4.2 Mixed forest Buffers

VRN welcome the increased minimum buffer for mixed forest to go from 20 to 40 metres in East Gippsland, and a 60 metre buffer for Nothofagus dominated Mixed Rainforest in the Central Highlands.

2.4.3 Minimum size

VRN welcomes a state wide directive to protect mixed forest, which is particularly significant for the Central Highlands given there is currently no guidance to specify what the minimum size should be.

However VRN is alarmed that under the proposed protection schedule there would be less protection for mixed forest in East Gippsland. The 0.4 to 1 ha mixed forest areas in East Gippsland that were getting a 20 metre buffer will no longer receive buffer protection and will be logged under this proposal.

VRN believes that to be consistent with the sliding scale protection system, all mixed forests 0.4 ha or greater should be protected from logging with a 20 metre buffer.

2.4.4 Aggregation of mixed forest and rainforest

Often mixed forest occurs adjacent to pure stands of rainforest. However if the mixed forests are less than 1 ha in size then buffers will not apply. There needs to be recognition of the total area rather than looking at the rainforests and mixed forests in isolation.

Hence there needs to be an aggregation rule which recognises that in some areas mixed forests and rainforest are a combined unit and need to be adequately protected. (Note: not to be confused with ecotone surrounding rainforest.)

VRN believes that the aggregation rule should determine that when the total area of mixed forest and rainforest is greater than the threshold then a buffer is applied.

There are two main aggregation issues that need to be addressed.

2.4.4.1 Mixed forest threshold issue

If a combination of rainforest and mixed forest make up 1ha then there should be a buffer.

For example when there is 0.8 ha of mixed forest occurring next to or near a 0.2 ha of rainforest then the whole area should be treated as a 1 ha area and a buffer applied. Under the current proposal the 0.8 ha of mixed forest would get logged and the 0.2 ha rainforest would get no buffer. This outcome would arguably be undermining the sliding scale buffering system given the mixed forest/rainforest stand adding up to 1 ha is more valuable than just a 1ha of mixed forest. The presence of a pure 0.2 ha rainforest stand protected from wildfire by the surrounding 0.8 ha of mixed forests also makes this whole stand arguably more valuable.

2.4.4.2 Combined mixed forest/rainforests issue.

VRN believes that all mixed forests that surround rainforest stands of 0.2 ha or larger must be protected. As is often the case, the buffering around the rainforest stands may take up some or all of the mixed forests present, but any mixed forests left outside the buffers should also be included as part of that buffer. This will correctly treat rainforest and mixed forest communities as complete ecological systems that do not exist in isolation and give pure rainforest communities more opportunity to ecologically expand over time within state forest.

2.4.5 Central Highlands mixed rainforest research

Back in 1998, the Central Highlands FMP acknowledged that the mapping of mixed forest (defined as both Cool Temperate Rainforest and Mountain Wet Forest Ecological Vegetation Communities) is incomplete and only after the mapping has been completed can the assessment be made on how to manage and protect that mixed rainforest.

However seven years later, Section 4.9.2 (a) of the state-wide *Management Procedure* indicates that the process of mapping is still continuing and that the management assessment will not occur until after the mapping is completed.

Section 4.9.2 (a) of Management Procedure

Once mapped the status of Cool Temperate Mixed Forest will be assessed and reserved at an appropriate level, in accordance with EVC conservation guidelines.

How long is it going to take to get this mapping done and an overall assessment made in the Central Highlands?

VRN believes that *the Intended Management Action* within the rainforest Action Statement must provide a fixed time line to get the mapping completed for Central Highlands mixed forest.

3 Over Slope Logging

3.1 Significance of proposed change overlooked in draft Code

VRN is very concerned about the proposal to remove the restriction on logging over 30 degrees by the introduction of cable logging. The 1996 Code has a guideline that makes it clear logging should generally not occur over 30 degrees. This is reflected in the state wide management procedures where logging is generally prohibited on slopes over 30 degrees in every forest management area. In many cases Forest Management Plans have advocated over-slope areas as affording additional protecting for rainforest.

VRN has a grave concern that the draft code has failed to treat this issue as a major change to land use on public land in Victoria. Any change like this requires public scrutiny and government disclosure of the process and issues.

By using data provided in the 2002 Jerry Vanclay sustainable yield calculation for each FMP in Victoria, there is in total about 350,000ha of public land in the Code slope and stream buffer exclusion areas. (See www.dse.vic.gov.au; See Forestry > Publications > Brochures: Forest Information Sheets > Forest health > Estimates of Sawlog Resources).

If it was assumed that only 50% of this land was over slope then that is a 175,000 ha area which would be available for logging if cable logging was introduced. If only 30% is over slope (an extremely conservative estimate) then the areas is 100,000 ha.

Hence the amount of land involved is very significant so this proposed change is very significant.

3.2 Planning processes undermined

Nearly every planning process such as Forest Management Plans(FMP), Regional Forests Agreements and the sustainable yield calculations all took into account that slopes over 30 degrees were unavailable to logging.

Many statements were made in these planning documents about how over-slope areas provide additional protection for streams, rainforest etc. This submission will make a case study of just one case, that regarding the implications for old growth in East Gippsland.

3.2.1 Case study: East Gippsland Wet and Damp old Growth in over-slope.

The East Gippsland FMP has a zoning scheme outlined on page 8 where 101,900 ha are classified as being with the General Management Zone but containing unproductive areas made up of over slope forest (>30 degrees) and low sawlog yielding forest. This category of unproductive forest is listed as 'GMZ other'.

In Appendix I of the East Gippsland FMP is a representation of old growth forest in conservation reserves and forest management Zones.

Of the old growth in the Damp (42,746 ha) and Wet (36,584 ha) ecological vegetation Class, 9% and 5% respectively is within the 'GMZ other' category. Given this sort of forest will be very high sawlog yielding forest, this effectively means that the 5,676ha of valuable old growth forests is in over-slope areas in East Gippsland and would be potentially threatened by cable logging.

3.3 Regeneration issues

Steep forest areas that have been subjected to wildfires have demonstrated that an increased level of erosion occurs during heavy rainfall events prior to vegetation re-establishment

Therefore the success or otherwise of revegetation becomes susceptible to heavy rainfall events as the broadcast seed will be washed off large parts of the revegetation area. The first attempt at revegetation will therefore have a higher than acceptable failure rate. Industry practice, on areas accessible to machinery such as bulldozers, has been to remove the vegetation that has emerged and re-established a mineral soil seedbed. On slopes over 30 degrees this is not be possible. As a result the potential of irrecoverable failed revegetation coupes will increase dramatically.

It is reasonable to assume that successive attempts at revegetation will become increasingly difficult as the topsoil will be removed through the erosion.

3.4 Erosion/landslip issues

The removal of the tree cover will result in higher rain drop velocity and an increase in the amount of rain actually falling to the ground as the interception of the tree canopy has been removed.

The speed of rainfall run-off greatly increases with the steepness of slope. This will result in substantial erosion.

Steeper slopes are more prone to landslips. During the initial years soil water saturation is likely to be higher. As a result, slopes are more likely to fail.

3.5 Economics

In discussion with various people from DSE, there seemed to be a view that cable logging will not take place anyway due to it being marginal in economic terms.

Nevertheless, there needs to be full disclosure of the particular areas and locations on public land that may be economically viable to cable log and the amounts of logs and woodchips that would be potentially made available.

3.6 Code review process is not sufficient to allow cable logging.

The Code review process must defer any decision that allows cable logging over 30 degrees until such time as more information about its impacts is made available to the public and further public discussion is facilitated.

APPENDIX A

I. Reports acknowledging need for independent process

Below is a summary of reports that acknowledge that an independent process is needed to determine the protection levels for rainforest.

- Land Conservation Council (LCC) 1986, *East Gippsland Area Review, Final Recommendations*. See recommendation E15 also see page 78.
For a copy of this report see <http://www.veac.vic.gov.au/lcc/eastgippsland.htm>
- Conservation Forests and Lands (CFL), 1990 David Cameron Memo *Timber harvesting within sites of significance for rainforest* (File number 86/737). See page 8.
- Conservation & Natural Resources (CNR), 1994 *East Gippsland Forest Management Plan Discussion Paper No.18. Rainforest conservation in East Gippsland*. See page 4 first paragraph.
- Conservation & Natural Resources (CNR), 1995 Mark Burgman *Rainforests in Victoria - a review of the Scientific basis of current and proposed protection measures*. See page 59.

II. Reports acknowledging need for transparency

Below is a summary of reports that acknowledge the need for transparency regarding the way RSOS are managed.

- Conservation & Natural Resources (CNR) 1995 Mark Burgman *Rainforests in Victoria -a review of the Scientific basis of current and proposed protection measures*. See first recommendation on page 55.
- *East Gippsland Forest Management Plan*. 1995 See "Action" bottom of page 19.
- *East Gippsland Regional Forest Agreement*. 1997 See Attachment 1 Rainforest Protection in the CAR Reserve System first paragraph.
- *Central Highlands Regional Forest Agreement*. 1998 See Attachment 1 Rainforest Protection first paragraph.

APPENDIX B

East Gippsland Forest Management Plan - Extract

CONSERVATION GUIDELINE – Rainforest (from page 20)

Sub-catchment protection. Core areas within Sites of Significance for Rainforest have been selected and placed in the SPZ in accordance with the following principles:

- Preference will be given to sites of National, State, and Regional significance in that order of priority.
- Preference will be given to core areas that are substantially undisturbed and which also help fulfil conservation guidelines for other values (such as Sooty Owl, Long-footed Potoroo and representation of EVCs or old-growth forest).
- A geographic spread of rainforest areas with sub-catchment protection should be provided across the FMA.
- A lower priority will be given to core areas that are large in relation to the rainforest they include, significantly disturbed, or close to conservation reserves with similar rainforest stands.

Application of this guideline ensures that at least 58% of rainforest in East Gippsland, including the most significant stands, will be protected by buffers of around 100m or larger

APPENDIX B –cont:

Central Highlands Forest Management Plan - Extract

Rainforest (from pages 13 & 14)

Sites of Significance for Rainforest

NRE has identified all patches of rainforest within the Central Highlands through a program of aerial photography and field reconnaissance.

Some of these patches are assessed to contain rainforest of regional, State or national significance using the following criteria: ecological integrity and viability, richness and diversity, rarity, representation, evolutionary development and scientific reference and education. Other patches of rainforest are considered to be locally significant.

The sub-catchment containing the regionally, State or nationally significant rainforest is called the 'Site of Significance for Rainforest'. The Central Highlands contains 34 Sites of Significance for Rainforest, 28 of them in State forest (NRE in prep).

'Priority areas' within each Site of Significance for Rainforest identify the most important areas for rainforest conservation. These 'Priority Areas' are ranked according to their relative importance and are based on:

- the size of individual rainforest stands or the highest concentration of stands within each Site of Significance for Rainforest
- rainforest stands surrounded by relatively undisturbed forest or old-growth forest, as defined by Woodgate et al (1994)
- stands with concentrations of rare or threatened flora
- areas with identifiable management boundaries such as sub-catchment divides, roads or topographic features.

Priority areas and stands of local significance are incorporated into the zoning scheme in line with the rainforest conservation guideline below. Appendix F lists the proportion of each priority area within each public land category in each Site of Significance for Rainforest in the Central Highlands.

MANAGEMENT PRESCRIPTION

Cool Temperate Rainforest

The width of rainforest buffers varies according to the significance of the rainforest stand and the priority area. The following minimum buffers apply:

Sub-catchments for those rainforest stands where the priority area is substantially undisturbed or the conservation requirements of other species or values are coincident with rainforest values

- 100 m for priority 1 and 2 areas within sites of national significance
- 60 m for priority 3 and 4 areas within sites of national significance and for priority 1 and 2 areas within sites of State significance
- 40 m for priority 3 and 4 areas within sites of State significance and all sites of regional or local significance

Larger buffers will be retained in many areas because of the protection of other values in the SPZ or in areas with steep slopes.

APPENDIX C

EG RFA Attachment 1, Feb 1997

Rainforest Protection in the Car Reserve System

All rainforest in Victoria, including a surrounding buffer, is excluded from timber harvesting. This is achieved through a hierarchical rainforest protection reserve system. An NRE Technical Report to be published by the end of 1997 will fully explain the system. The report will include a description of Sites of Significance for Rainforest and their levels of significance (National, State and Regional) and how these are managed. The report will also detail how core zones, which contain the major rainforest stands, have been identified within each site of significance and how they contributed to the design of the SPZ in the Forest Management Plan.

Prior to this Agreement the approximate protection of core zones within Dedicated Reserves was 70%, 42% and 32% for sites of National, State and Regional significance respectively. These protection levels were augmented through the creation of Informal Reserves (part of the SPZ) in the East Gippsland Forest Management Plan. Selection of core zones for inclusion in Informal Reserves was based on their significance, the amount of past disturbance in the vicinity and the degree to which comparable areas were represented in Dedicated Reserves. These Informal Reserves increased the total reservation of rainforest core zones to 90%, 66% and 65% respectively.

All remaining rainforest stands are protected in the prescription component of the SPZ through the implementation of the Code of Forest Practices for Timber Production. The key elements of the Code with respect to rainforest conservation include:

- maintaining at least 20m buffers around linear strips of rainforest and 40m buffers around the larger stands,
- the protection of buffers from damage caused by trees felled in adjacent areas, and
- the requirement that rainforest be identified on each coupe plan and that buffers be identified in the field.

The protection of rainforest has been enhanced through this Agreement by the establishment of the Martins Creek and Goolengook Flora and Fauna Reserves. Protection within the Dedicated Reserves is now afforded to most stands in all National Rainforest Sites of Significance.

Central Highlands RFA Attachment 1 March 1998

Rainforest Protection

All rainforest in Victoria, including a surrounding buffer, is excluded from timber harvesting. This is achieved through an hierarchical rainforest protection reserve system. A Technical Report to be completed in 1998, will fully explain the system including a description of Sites of Significance for Rainforest across the State and their level of significance (National, State and Regional) and how they are managed.

Rainforest stands are protected through all CAR Reserve components. Protection through the prescription component is effected through implementation of the Code of Forest Practices for Timber Production. The key elements of the Code with respect to rainforest conservation include:

- defined areas of rainforest, and a strategy for their management, included as part of planning for conservation of flora and fauna in Forest Management Plans and/or relevant prescriptions. The most important rainforest areas should be accorded highest protection;
- in the absence of detailed strategies within an approved Management Plan, prescriptions are provided for stands of lesser significance, for stands where *Nothofagus* makes up >20% of the canopy, and for stands containing nationally significant rainforest;
- the requirement that rainforest be identified on each coupe plan and that buffers be identified in the field;
- the protection of buffers from damage caused by trees felled in adjacent areas.

In accordance with the Code, the Central Highlands Forest Management Plan outlines a strategy for the management of rainforest in State Forest.

Appendix D

VRN's first Submission, October 2005

The Victorian Rainforest Network's first submission to Code of Forest Practices for Timber Production Review Process, October 2005

Victorian Rainforest Network

Submission to the Code of Forest Practices for Timber Production Review Process

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October 2005

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1.0 Introduction

This is a submission by the Victorian Rainforest Network (VRN) which primarily deals with the rainforest issues of Section 2.3.7 of the *Code of Forest Practices for Timber Production*.

The primary issues for VRN are:

- ❖ Code rainforest buffers
- ❖ Rainforest definition and identification

2.0 Code rainforest buffers

The *Code of Forest Practices for Timber Production* (Revised, 1996) prescribes minimum buffers to rainforest throughout-out Victoria. (See Section 2.3.7(i)(ii)(iii) of Code).

In summary the three basic buffer categories are:

- (i) In general all rainforest must receive at least a 40 metre buffer.
- (ii) Cool Temperate Rainforest dominated by myrtle beech (*Nothofagus cunninghamii*) receives a 60 metre buffer. This extra buffer acknowledges the impact of a dieback disease called myrtle wilt. See more about myrtle wilt on the OREN website.
- (iii) For rainforest of 'National Significance' the entire catchment where the rainforest occurs is the buffer and must be excluded from logging operations.

Of great concern to conservationists is the fact that buffers applied in practice are much less than what are indicated in the Code. Generally buffers that are applied in the field are the same as those detailed in Forest Management Plans (FMP).

The FMP's for East Gippsland and Central Highlands cover the bulk of Victorian rainforest that is currently threatened by logging practices on public land.

None of the three buffers prescriptions outlined in Section 2.3.7 of Code are applied. Instead the follow generally occurs:

- (i) For the East Gippsland FMP, rainforest buffers of only 20 metres are generally applied to rainforest when the Code requires 40 metres.
- (ii) In the Central Highlands FMP, rainforest buffers of only 40 metres are applied despite the fact rainforest is dominated by myrtle beech (*Nothofagus cunninghamii*) where under the Code there should be a 60 metre buffer. However in the Otways, the Code prescription of 60 metres is now applied after years of conflict between conservationists and the Government. (See Appendix 1).
- (iii) For all the FMP's across Victoria, the issue of sub-catchment protection for national significant rainforest is ignored. Logging is allowed to occur in these sub-catchments and generally 20 - 40 metre buffers are applied.

2.1 Victorian Rainforest Network View

At dispute is the issue of which buffers should in be applied. Conservationists believe the FMP rainforest buffers are in breach of the Code given the Code provides an overarching “directive “ to regard the minimum rainforest buffers in Section 2.3.7 as a minimum when developing other plans and prescriptions.

This overarching directive is provided twice within the Code.

The first time is on page 3 of the Code in a section titled “*Management of Timber Production Operations*” where it states:

“the Code does provide a few key Statewide prescriptions (eg. width of streamside buffers, grades of roads) which will act as minimum allowable standards for building local prescriptions to cope with the needs of different land types and land units.

“*Forest Management Plans**, *Wood Utilisation Plans**, *Forest Coupe Plans** and *Timber Harvesting Plans** will be consistent with the Code.”

The second time this comes up is the definition for *Forest Management Plan* outlined in Appendix 1 of the Code. There is a specific directive to look at the provisions of Section 2.1 in the Code. Section 2.1 provides guidelines that must be considered when constructing Forest Management Plans. However what is important is the introduction to all of Section 2 titled “*Application of the Code – public land native forests*” which makes a clear overarching directive (which includes Section 2.1 and Section 2.3.7) that:

"These plans and prescriptions must be consistent with the Code and will exceed the minimum requirements outlined in the Code where necessary to protect environmental values."

Hence to be consistent with the Code it is reasonable to expect that any listed buffers in Section 2.3.7 should be regarded as the minimum requirements. Hence Forest Management Plan's and regional prescriptions must as a minimum, adopt the Code rainforest buffer requirements as outlined in section 2.3.7 of the Code.

The Code is structured in a way that uses the definition for *Forest Management Plan* as an instruction and links back to Section 2.1.

The Code defines *Forest Management Plan* as:

Forest Management Plan - Forest Management Plans will be produced by Department of Natural Resources and Environment to address the full range of values and uses in Forest Management Areas which have been designated as the units for planning forest management activities.

Forest Management Plans will be prepared according to the guidelines set out in Section 2.1 of this Code.

So whenever *Forest Management Plan*(*) appears in the Code, it is referring back to Section 2.1 and the overarching directive to regard standards within the Code as a minimum when formulating other plans.

2.2 DSE view

The Department of Sustainability & Environment argues, that within Section 2.3.7 of the Code it states:

"in the absence of detailed strategies within an approved Forest Management Plan*, which address regional characteristics, the following prescriptions will apply."

Hence DSE interprets this to mean that if a Forest Management Plan exists then the rainforest buffer prescriptions outlined in Section 2.3.7 can be ignored. (See *Appendix 3, point 4*). This view has already landed DSE into conflict with the community and legal trouble. (See *Appendix 1*)

However by interpreting the Code in this way, DSE has ignored the fundamental way the Code is structured. In particular DSE ignores the "*" with *Forest Management Plan* in Section 2.3.7 which makes a link to the Code definition for *Forest Management Plan* and subsequent link back to the Code Section 2.1 guidelines and the overarching directive written into the introduction of Section 2.

Hence VRN has come to a conclusion that the Code is not necessarily in error or in need of revision. The real issue is DSE is blatantly ignoring the way the Code is structured to avoid the environmental obligations outlined within the Code. Arguably DSE does this so sawlog output can be maximised by using substandard buffers outlined in FMP's next to rainforest. Hence is not unreasonable for the community to take the view that DSE have been helping themselves to trees in violation of the minimum Code buffers for the past 10 years.

One way to fix the Code would be to repeat the overarching directives again within Section 2.3.7 or Section 2.1, however this could result in the need to repeat the same words again and again whenever the issue of buffers comes up though-out the Code. Is this necessary given there is already an overarching directive for the whole of Section 2 of the Code? How do you make DSE interpret the Code correctly?

VRN believes that fundamentally the structure of the Code will need to be changed to make it clear what the minimum rainforest requirements actually mean.

2.3 Critical CSIRO recommendation ignored

In January 1995, the Commonwealth Scientific and Industrial Research Organisation (CSIRO) was commissioned by the Victorian State Government to conduct a review of the Code of Forest Practices.

CSIRO specifically recommended that the rainforest buffer widths listed in section 2.3.7 of Code are to be regarded as “*interim minimum levels of protection*”. However this recommendation was not made specific in Section 2.3.7 of the final revised 1996 Code of Forest Practices.

Instead the Code was structured in the way to give an overarching minimum standard directive as discussed above.

However the fact the CSIRO made a specific reference to nominate rainforest buffers as an “interim minimum” is proof in itself that DSE has been incorrectly interpreting the Code.

See Appendix 2 for key extracts from two CSIRO reports used in the 1996 Code review process (key words have been underlined by VRN).

2.4 VRN and the EPA

VRN lobbied the Environmental Protection Agency (EPA) in 2004 to conduct an audit of the application of Section 2.3.7 of the Code. The EPA agreed to look at rainforest protection for the Central Highlands Forest Managements Plan.

However VRN disapproves of the way this audit was conducted as the EPA auditors decided to use the same interpretation of the Code as DSE. The 2004 EPA audit findings were published in a report titled "*Timber Production On Public Land 2004, findings and recommendations*".

VRN wrote to the EPA in March 2005 to provide feedback and complain about the way the 2004 audit was conducted with reference to the definition of Forest Management Plan in the Code.

In the EPA response to VRN, the EPA has made an admission the auditor knew that the Code definition for *Forest Management Plan* was in fact a Code instruction.

But like DSE, the auditor went to lengths to avoid commenting or even acknowledging the implications of this critical Code instruction for the management of Victorian rainforest.

The details of the VRN complaint to the EPA is provided in Appendix 3.

It is important to note that the EPA audit process does not seek to determine if the Code requirements are in fact being effective in protecting environmental values against the impact of logging operations.

The "Project Brief" in Appendix B of the 2004 EPA audit report states:

"The audit itself will not include assessment of the efficacy if the code and other associated management framework/planning documents, however the outcomes will contribute, along with other studies, to the future review of the code."

2.5 Nationally Significant Rainforest buffers

For nationally significant rainforest, the Code states:

- (iii) for stands containing nationally significant rainforest – the highest degree of protection generally sub-catchment level, except where full protection can be provided by other measures, which are/will be outlined in approved plans.

It is important to understand that the Rainforest Sites of Significance (RSOS) process is the only process that provided ratings to categorise the importance of rainforest in Victoria. A National RSOS generally contains a core nationally significant rainforest area with a sub-catchment boundary. In general all RSOS have sub-catchment boundaries. Hence the Code is nominating the buffer being the area between the core rainforest and sub-catchment boundary.

In recognition of the Rainforest Sites of Significance process, the *CSIRO Review of the Code of Forest Practices for Timber Production September 1995*; gave a specific recommendation to protect nationally significant rainforest with buffers to the sub-catchment boundaries. (See appendix 2)

- (iii) for stands containing nationally significant rainforest that is sensitive to management operations- sub-catchment protection.

However the words “*except where full protection can be provided by other measure, which are/will by outlined in approved plan*” were added to the 1996 revised Code. This is interpreted by DSE to mean only the core rainforest area within the Rainforest Site of Significance needs to be protected and logging can proceed within the rest of the RSOS sub-catchment. This practice occurs within all National RSOS in State Forest.

Any rainforest less than 0.4 ha within a National RSOS is subject to the *State wide Managements Prescriptions* and is generally destroyed or compromised as a part of the logging operation. Hence rainforest within a National RSOS is being destroyed.

Hence Nationally significant rainforest is not getting “*full protection*” or the “*highest degree of protection*” with a sub-catchment buffer area as stated in the Code, Section 2.3.7 (iii).

As discussed earlier, the overarching directive within the Code to regard the minimum rainforest buffers in Section 2.3.7 as a minimum when developing other plans and prescriptions is also being breached.

The wording of the original (iii) 1995 CSIRO recommendation should be adopted in full in this Code review.

3.0 Rainforest Identification

Inappropriate rainforest identification on public land in Victoria is allowing rainforest communities to be destroyed by logging practices in breach of the Code. This destruction is currently sanctioned by the State Government due to conflicting definitions and contradicting management strategies. The primary issues are:

- ❖ DSE has failed to formally accept the FFG Act definition for rainforest.
- ❖ DSE currently condones the destruction of rainforest communities that are less than 0.4 ha by logging operations, which is in breach of the Code.
- ❖ The *State Wide Management Procedures* for rainforest contain rainforest identification instructions that are inconsistent with the Code and full of contradictions.

3.1 Emerging/mixed rainforest definition

There is conflict relating to the official definition of Rainforest in Victoria and within the Code itself that needs resolution.

The definition for *rainforest* (*) within the Code excludes emerging/mixed rainforest and uses the 1987 Conservation Forests & Lands (CFL) definition. However the definition for *Forest Management Plan* (*) within the Code requires Forest Management Plans and prescriptions to adopt the Flora & Fauna Guarantee (FFG) Act rainforest definition (See Section 2.1 of the code). FFG Act Nomination 207 includes emerging rainforest in the definition.

Hence the Code draws on two definitions for rainforest, one with emergent rainforest (FFG Act nomination 207) and one without (1987 CFL).

DSE have totally ignored the FFG Act. The 1996 revised Code, 1995 East Gippsland FMP and 1998 Central Highlands FMP have all retained the 1987 CFL definition of rainforest rather than the 1992 FFG Act Nomination 207 definition for rainforest. VRN believes the FFG Act has been ignored due to commercial pressures.

3.2 Destruction of rainforest less than 0.4 ha

The intended purpose of Section 2.3.7 of the Code is to protect all rainforest no matter what its size. It states

“Rainforest must be excluded from timber harvesting and, because rainforest communities may be particularly vulnerable to adjacent disturbance, they should be surrounded by an appropriate buffer”.

However DSE has a policy in East Gippsland and the Central Highlands to exclude small communities of rainforest under 0.4 ha in size as well as small linear strips along creeks from receiving a buffer during logging operations. VRN believes the practice of logging areas less than 0.4 ha is a breach of the Code and in violation of FFG Act Nomination 207.

Small rainforest stands under 0.4 ha are totally destroyed in the artificial regeneration burn after logging because there are no buffers. Hence it is a fact that rainforest is being routinely destroyed as a result of logging practices condoned by the government and despite the Code.

Hence it cannot be said by the Victorian government or the native forest logging industry that all rainforest on public land is protected from logging operations when clearly there are “rules” that excludes small rainforest communities less than 0.4 ha in size from receiving protection.

DSE offers the argument that rainforest is not rainforest because a prescription. However the very fact that a prescription exists within the *State Wide Management Procedures* to exclude rainforest communities under 0.4 ha in size, is in itself an acknowledgment that rainforest communities less than 0.4 ha in fact do exist.

Nature of rainforest occurrences is illustrated by the fact that Victoria has an estimated 15,800 hectares of mature rainforest containing over 4,100 small patches. (*Rainforest in Victoria – a review of the scientific basis of current and proposed protection measures*, Department of Conservation and Natural Resources, 1995). So, of all these small patches, how many are less than 0.4 hectares. The Code must make it clear that it applies to a rainforest “community” (which is implied to the Code rainforest(*) definition) regardless of size.

3.3 State Wide Management Procedures contradictions.

The *State Wide Management Procedures* demonstrate a high level of inconsistencies and contradictions in the way rainforest is recognised across Victoria, an issue the Code needs to address. These are:

The *State Wide Management Procedures* provide a process to identify rainforest communities for East Gippsland (*See Management Procedures 4.8.2(a)*) and the Central Highlands (*See Management Procedures 4.8.3(a)*) based on the rainforest indicator species present.

However if the rainforest community fails to meet the “size criteria” of the *State Wide Management Procedures 4.8.2(c)* and *4.8.3(c)* for East Gippsland and the Central Highlands respectively, then it is not considered rainforest and describe as a “stand” of trees rather than a “community” of rainforest plants as outlined in *4.8.2(a)* & *4.8.3(a)*. This contradiction suits a commercial point of view rather than ecological functioning.

The *State Wide Management Procedures* for the Otways provide a directive to use the David Cameron guideline to identify rainforest but in contrast to East Gippsland and the Central Highlands, provide no limit on the size that rainforest needs to be.

From a practical point of view it is possible to protect all smaller rainforest communities. In the Otways all rainforest communities less than 0.4 ha were routinely protected from logging. A good example was at the Browntown coupe within the Aire-Young’s Creek National Rainforest Sites of Significance. In 2002, rainforest experts David Cameron and Mark Burgman, along with conservationists and DSE attended a Otway field trip to teach forestry officers to identify rainforest buffers at the Browntown coupe for a community less than 0.4 ha in size. There are many examples in the Otways where very small rainforest communities were preserved.

The Code should make a directive that the very existence of rainforest communities is the criteria for protection and appropriate buffer, rather than the nominating the size of a rainforest community.

Appendix 1

Court cases successfully challenge Forestry Victoria's interpretation of the Code

It has been proved in the courts that the buffers used by DSE from Forest Management Plans (FMP) were in breach of the Code and illegal. Conservationists have successfully challenged the legality of Forestry Victoria's decision to ignore Code rainforest buffers, arguing that much of the logging near rainforest in Victoria is in fact illegal. There are at least two examples of this:

Geelong County Court, January 2003

Conservationists that opposed logging at Ciancio Creek in the Otways in 2001 successfully challenged the legality of the DSE decision to apply substandard buffers from the Otway FMP and ignore Code rainforest buffers. (*See Age newspaper article, next page of this submission.*)

This court win has resulted in changes to the way *Nothofagus* rainforest buffers in the Otways are applied. The *State Wide Management Prescriptions* now nominate a blanket 60 metre buffer for all rainforest in the Otways. This in line with the Code section 2.3.7 (ii).

Supreme Court, July 2005

The supreme court found logging in 2001 conducted at Sellers Road to be illegal in East Gippsland because it was in breach of the requirements of Section 2.3.7 of the Code.

VRN is not aware of any changes to the way rainforest buffers are marked up in East Gippsland since this court ruling.

See Supreme Court judgment *Hastings v Brennan & Anor; Tantram v Courtney & Anor (No. 3) [2005] VSC 228 (28 June 2005)* at:

<http://www.austlii.edu.au/au/cases/vic/VSC/toc-H.html>

Newspaper article

The Age

Greenie's court win leads logging review

January 31, 2003.

By Melissa Fyfe, Environment Reporter

The State Government will review its guidelines for logging near rainforests after losing a court case against an anti-logging protester.

The Department of Sustainability and Environment yesterday admitted the case raised a "grey area" for how it interpreted the Code of Forest Practices for Timber Production.

In the Geelong County Court on Wednesday, Hayley Shields, 23, successfully appealed against a charge of obstructing a lawful logging operation. It was a win that environmentalists believe will have repercussions across the state.

Ms Shields was involved in the 2001 protest in the Ciancio forest block in the Otways. Protesters believed logging was too close to protected rainforest.

The former Department of Natural Resources and Environment had allowed for a 40-metre buffer between logging and rainforest, as recommended by the local forest management plan.

But the code says that - in the absence of a detailed forest plan - there should be a 60-metre buffer for forests that are more than 20 per cent myrtle beech trees. This is to ensure that logging and road activity does not spread the fungal disease myrtle wilt, which is fatal to the trees.

Judge John Nixon ruled that the department had interpreted the code incorrectly and the local forest management plan did not contain a detailed strategy for the protection of rainforest.

Following the case, prosecutors agreed to drop similar charges against 13 other protesters arrested in the same forest block.

Environmentalists saw the case as a test of whether the department can be legally bound by the code. They mounted a similar case about rainforest buffers in East Gippsland last year but lost.(but later won!)

"It was a win that environmentalists believe will have repercussions across the state."

The department will now review how the code fits with local forest management plans across the state. "In the light of the court's decision, the DSE (department) will review the circumstances of this case in order to clarify the application of the Code of Forest Practices relating to the protection of rainforest," a department statement said.

Although recent cases have focused on the protection of rainforest, the broader issue is whether the anti-logging movement can prove operations are illegal. If this is proved, it will be more difficult for protesters to be charged under the Conservation, Forests and Lands Act for obstructing a lawful logging operation.

The DSE said Judge Nixon had ruled the department and its officers had acted in good faith, believing that they were complying with the appropriate prescription and on that basis he did not award costs against the department.

The department said it was premature to predict whether the timber industry's access to wood - through wood utilisation plans - would need to be altered.

Appendix 2

CSIRO report extracts

CSIRO Review of the Code of Forest Practices for Timber Production

Date: September 1995; Page 18.

2.1.2 Protection of Rainforest

Suggested Goal: Rainforest must be excluded from timber harvesting, and because rainforest communities may be particularly vulnerable to adjacent disturbance they should be surrounded by an appropriate buffer.

Suggested Guidelines:

* areas of rainforest must be defined, and a strategy for their management must be included as part of planning for conservation of flora and fauna in regional forest (FMA) plans. The most important areas should be accorded highest protection;

* rainforest areas must be identified in the field and buffer edges marked prior to harvesting

* timber harvesting must be excluded from buffer areas surrounding rainforest;

* there should be an increasing degree of protection commensurate with increasing significance of the rainforest patch. Interim minimum levels of protection should be:

(i) for stands of lesser significance – 40 m buffers, or 20m exclusion plus a 40m modified harvesting strip (> 40% of basal area retained, low machine disturbance, minimal burning);

(ii) for stands where *Nothofagus* makes up >20 % of the canopy – buffers of 60 m, or 40 m buffer with 40m modified harvesting zone (> 40% of basal area retained, low machine disturbance, minimal burning);

(iii) for stands containing nationally significant rainforest that is sensitive to management operations-sub-catchment protection.

CSIRO response following the consultation phase of the review

Date: November 1996; Page 9,10

2. Definition and protection of rainforest

(ii) Conservation Strategies for Rainforest

As stressed in the CSIRO interim report, given the uncertainty about the effectiveness of buffers in providing long-term protection to rainforest, a cautious approach must be adopted. In particular the threat to *Nothofagus* from Myrtle Wilt needs to be considered, as does the effect of large trees penetrating the buffer following windthrow. The public comments have expressed contrasting views on the width of buffers around rainforest. For example, it has been claimed that the proposed buffers are too narrow, especially to prevent damage from windthrow and fire; and that the incidence of Myrtle Wilt in unaffected be harvesting, so that risk of disease can not be used to justify increasing buffer widths. Some comments point out the operational difficulties of maintaining the prescribed buffer strips when the rainforest patch itself is small. We do not believe that there is sufficient available information to resolve these conflicting claims at present. However, a rainforest patch once severely damaged by forest operations may not be restorable, and therefore, a precautionary approach is necessary.

Ideally, measures (including the degree of buffering) to protect rainforest should be varied regionally according to the degree of perceived risk, and specified in FMA plans and local prescriptions. The suggested minimum buffer widths and/or modified harvesting strips proposed by CSIRO should be adopted as an interim measure, but be subject to ongoing review based on new information.

Appendix 3

EPA Code Audit Report challenged by VRN Issues

In 2004 EPA Code audit findings were published in a report titled “*Timber Production On Public Land 2004, findings and recommendations*”.

VRN wrote to the EPA in March 2005 to provide feedback and complain about the way the EPA 2004 audit was conducted in relation to the audit of code Section 2.3.7.

The fundamental issue was the fact the Auditor (like DSE) did not recognised the way the Code is structured and failed to recognised the importance of the definition for *Forest Management Plan* within the Code. The following are the key issues VRN raised:

1. What is claimed in the 2004 Code Audit Report, section 4.15.3 titled “*Code requirements*” is in fact a misrepresentation of what is actually written in the Code as the “*” was not reproduced in this audit report.

2. The Code defines *Forest Management Plan* as:

Forest Management Plan - Forest Management Plans will be produced by Department of Natural Resources and Environment to address the full range of values and uses in Forest Management Areas which have been designated as the units for planning forest management activities.

Forest Management Plans will be prepared according to the guidelines set out in Section 2.1 of this Code.

However Section 7, *Glossary* of the 2004 audit report provides a definition for *Forest Management Plan* that states:

A plan developed to address the full range of values and uses in State forest by FMA. (Gippsland FMP, 2004.)

However at the start of Section 7, *Glossary* the misleading statement is made:

Where available, the following definitions have been drawn from the Code.

The definition of Forest Management Plan in the Code has been ignored and the 2004 Code audit report makes a statement that implies a definition for Forest Management Plan was not available in the Code.

3. In section 4.15.4 of the 2004 Code Audit Report titled “*Forest Management Plans*”, there is no reference to the Code definition for “*Forest Management Plan*”.

4. In Section 4.15.5 of the 2004 Code Audit Report titled “*Application of the code*”, the second paragraph reads:

DSE regard the second dot point as pertaining to rainforest management at coupe’s in regions for which an FMP has not been prepared.

In fact the second dot point says:

” in the absence of detailed strategies within an approved Forest Management Plan, which address regional characteristics , the following prescriptions will apply:”

Hence it is not the existence of a Forest Management Plan that is the issue but the existence of detailed strategies for rainforest management. DSE’s incorrect interpretation of the Code has already led to conflict and legal trouble in the Otways (See news article from The Age in Appendix 1).

The auditor’s blind acceptance of the DSE interpretation of the Code fundamentally undermines the credibility of the audit.

EPA response to VRN complaints

The EPA responded to VRN in a letter dated 12 April 2005 (EPA Ref: SU002418/56500-1) where it states:

In your letter, you refer to the definition of Forest Management Plan that was used in the audit. The auditor has stated to the EPA that he considered the definition of a Forest Management Plan (FMP) to be a description of a process of procedure. This is why the definition from the Gippsland Forest Management Plan was included and referenced in the audit.

VRN views this statement from the EPA as an admission the auditor knew that the Code definition for Forest Management Plan was in fact a Code instruction which impacts on the way rainforest in Victoria is to be managed. But like DSE, the auditor went to lengths to avoid commenting or even acknowledging the role of this critical Code instruction.

In fact the auditor had to go hunting for another definition for FMP given the Gippsland Forest Management Plan is not even the area subject to the 2004 audit. As stated in section 4.15.1 of the audit report, the purposed of the audit was to look into the Central Highlands Forest Management Area which has a Central Highlands FMP. So why wasn’t a definition for FMP from the Central Highland FMP used?

Department of Conservation, Forests & Lands

Memorandum

Your Ref
Our Ref

86/737, 89/794

26 March 1990

TO: Paul Gullan, Manager, Flora and Fauna Survey and Management Group

FROM: David Cameron, Rainforest Project Botanist, Flora and Fauna Survey and Management Group

SUBJECT: TIMBER HARVESTING WITHIN SITES OF SIGNIFICANCE FOR RAINFOREST

Survey of Rainforest in Victoria

The Flora and Fauna Survey and Management Group is currently conducting a statewide survey of rainforest. This project is partially funded by the Commonwealth Government through the National Rainforest Conservation Program and represents an integral part of the State's contribution and commitment to this Program. Victoria's component of this Program was launched in December 1986 and two of its objectives are:

- to improve knowledge and understanding of the rainforest estate; and
- to ensure careful management and protection of areas of rainforest.

The rainforest project was formulated to achieve the first objective and to contribute to the achievement of the second. To meet these objectives, the Project Description (file 86/737, folios 44-49) requires that

'The survey will identify sites of botanical significance and will assist in determining the need for further reservation or special management prescriptions.'

and further states that

'The primary objectives [of the project] are to classify and map rainforest, to evaluate conservation status, determine sites of special significance and build a reliable information base for developing and applying land use prescriptions.'

Accordingly, the Project Description states that the penultimate stage in the project, prior to the preparation of the final report and maps, is to

'Further analyse data to identify sites of significance and hence identify need for further reservation or management requirements.'

In effect, the project brief requires the development of a concept of the critical habitat requirements of Victoria's rainforest communities. Ultimately, it is envisaged that these rainforest communities will warrant nomination under the Flora and Fauna Guarantee Act.

Definition of Rainforest

The State Conservation Strategy clearly commits the Department to

‘protect all areas of rainforest (as defined by the Government Rainforest Technical Committee) from logging and other disturbances’.

The Project Description for the rainforest project states that

‘A definition of rainforest for use in Victoria was prepared by the Rainforest Technical Committee in February 1986 and is to be published in slightly amended form in the draft document “A New Era for Victoria’s Rainforests” in July 1987.’

The ‘slight amendment’ referred to in these documents consists of the deletion from the Rainforest Technical Committee’s definition of the crucial reference to the status of transitional, seral, ecotonal or mixed forest communities which comply with all the structural, floristic and ecological criteria for recognition as rainforest but which contain emergent eucalypts (or other sclerophyll species such as blackwood), namely

‘Rainforest includes dosed transitional and seral communities, with emergent eucalypts, that are of similar botanical composition to mature rainforests in which eucalypts are absent.’

This reference was included in the Technical Committee’s definition in order to bring the Victorian definition in line with current ecological (though not necessarily forestry) practice throughout Australia. This is reflected by the following definition of rainforest, which was accepted by the Ecological Society of Australia in 1980 as part of a resolution on the conservation of Australian rainforests:

‘Rainforests are defined ecologically as closed, broadleaved forest vegetation with a continuous tree canopy of variable height, and with a characteristic diversity of species and life forms. The ecological definition of rainforest includes transitional and seral communities with sclerophyll emergents that are of similar botanical composition to mature rainforests in which sclerophylls are absent.’

There can be no doubt as to which is the ‘correct’ definition and, to our knowledge, no rationale has ever been produced for the deletion of this critical reference from the Technical Committee’s definition. There is also no doubt, however, that regional staff are, at best, applying the Department’s amended definition in their day to day management of forests. The inescapable conclusion is that the Department’s management of the rainforest estate is in breach of the State Conservation Strategy. The magnitude of this problem is illustrated by the Otways forests where the extent of communities in dispute is now considerably more extensive than that of ‘pure’ rainforest dominated by Myrtle Beech. As a result of the current epidemic of myrtle wilt, a fungal disease of Myrtle Beech which kills mature trees, it is quite conceivable that within a decade all the mature rainforests of the Otways will have been transformed into Blackwood dominated stands, none of which require protection under the amended definition. The Department’s ‘New Era for Victoria’s Rainforests’, now out of date, claimed that ‘The fungus is a native species and there is no evidence that it is a serious problem in Victoria.’ Similar considerations apply elsewhere in the state, for example the mixed forests of the Errinundra Plateau in East Gippsland and in parts of the Central Highlands.

The Project Description for this project states that

‘One of the objectives of the project will therefore be the interpretation of the rainforest definition and where necessary to alter it to remove any obvious ambiguities in its practical application.’

Considering the current and long-term threats to the survival of Victoria’s rainforests, we advocate a cautious and conservative approach to further harvesting in the vicinity of rainforest. A moratorium on harvesting of all vegetation which could be interpreted as rainforest by either definition is warranted until the issue of the legitimacy of the amended definition is resolved.

Sites of Significance for Rainforest

The rainforest project has now reached the stage where a comprehensive system of sites of significance has been delineated for all regions of the State in which rainforest occurs. Apart from minor amendments, the site delineation phase of this project is considered to be essentially complete. The detailed documentation of the significance of each site is currently proceeding, and significance statements have already been prepared for lowland sites in the Bairnsdale and Lakes Entrance districts. Minor amendments to the statewide register of rainforest sites may be required as a result of additional information forthcoming from current surveys (for example from flora and fauna surveys in East Gippsland, the vegetation study conducted for the LCC review of the Melbourne (District 2) Study Area, the 'ash roading' block survey proposed for the environs of the Baw Baw Plateau and investigations into the status of rare or threatened species such as *Astelia australiana*) or from the classification of rainforest quadrat data.

By the application of uniform criteria across the state, this project has identified a total of 181 sites of significance for rainforest in Victoria. As might be expected, a large majority of these sites have been identified in East Gippsland, with smaller numbers in the Central Highlands, South Gippsland and the Otways respectively.

Guidelines for the assessment of biological significance are currently being formalized by staff of the Flora and Fauna Survey and Management Group, in consultation with biologists elsewhere in the Department, in academic institutions and in private practice. The identification, delineation and rating of sites of significance for rainforest in this project, and the framing of management prescriptions and recommendations for their protection, follow well-established procedures and therefore conform to the guidelines currently being formalized within the Department. Criteria applied in the determination of rainforest sites parallel those adopted by the Australian Heritage Commission and cover:

1. ecological integrity and viability
2. richness and diversity
3. rarity
4. representation
5. evolutionary development
6. scientific reference and education

The principal criterion guiding the delineation of sites of significance in this project is the principle of catchment or sub-catchment integrity. This principle is firmly enshrined in the theory and practice of biological conservation and is widely acknowledged to be of particular relevance to rainforest conservation on account of the following characteristics of rainforest:

- (1) rainforests generally occur in sharply dissected terrain in which catchment units define natural, ecologically viable conservation and management units;
- (2) the complex linear to dendritic configuration of most Victorian occurrences of rainforest renders them uniquely susceptible to edge effects and in particular to incremental marginal attrition;
- (3) most Victorian rainforests depend, for their long-term survival, on topographic protection from fire, generally by the operation of a moisture differential mechanism which is exceptionally vulnerable to disruption by human activity, including subtle 'action at a distance' effects;
- (4) Victorian rainforests exist in a delicate and dynamic ecological balance with their surrounding eucalypt forests and the two operate as an integrated ecological functional unit. Major impacts on structure, composition and fire behaviour of the eucalypt forests elsewhere within the catchment unit may have drastic impacts on this delicate interaction, even though this may not become evident until much later in the fire cycle of the eucalypt forest; and
- (5) rainforests require one of the longest periods for recovery, following disturbance, of any vegetation type.

These considerations call for a highly conservative approach to rainforest management. The only way to guarantee the long-term survival of rainforest is to provide the maximum available buffer, which normally implies the protection of entire sub-catchment units. Whilst it is inconceivable that all rainforest stands could be afforded catchment protection, the only responsible course is to offer such protection at least to those rainforest stands which have been assessed, on objective criteria, as having high or outstanding biological significance. Such stands should be included within sites of significance built up from one or more sub-catchment units in such a configuration as will most economically embrace the range of values that have led to the stand or constellation of stands being designated as significant. Appropriate management recommendations or prescriptions should then be framed to ensure the protection of the rainforest values identified.

As a guide to establishing priorities for the protection and management of Victorian rainforest, the sites of significance delineated in this project have been rated according to the scale of reference, using the established convention of recognizing significance at the national, state, regional or local level. Owing to the distinctive nature of the Australian biota, and the unique ecological relationships of many of its plant or animal communities, recognition of global or international significance is considered superfluous, and any site of national significance can also be regarded as a site of global significance. National, state, regional or local significance ratings are considered to be appropriate if the particular occurrence of a rainforest attribute substantially contributes to the presence of that attribute in either Australia, Victoria, a designated region or a local area, respectively.

In view of the State Government's policy regarding the protection of all areas of rainforest from timber harvesting and other disturbances, the recognized significance of rainforest for flora and fauna conservation, stream and catchment protection and water production, and intrinsic rarity of rainforest within the landscape at all scales, all occurrences of rainforest are considered to have at least local significance throughout the state. Accordingly, no sites of local significance have been identified in this project although rainforest has been mapped, at a variety of scales and according to a range of definitions and perceptions, for most regions of the State in which it occurs. These maps provide an indication of the occurrence and distribution of at least the major stands of structurally definable core rainforest as a guide to management.

Appendices I, II, III and IV list all sites of regional, state or national significance identified within each of the four biogeographic regions in which Victorian rainforests occur, namely the Otways, the Central Highlands, South Gippsland and East Gippsland, respectively. A number of sites in the Dandenong, Central Gippsland and Bairnsdale Regions have been assigned provisional ratings pending the findings of further survey work required in these areas. Although most of these sites have been conservatively rated as having regional significance, a number may be found, on closer inspection, to warrant higher rating.

The following table summarizes the distribution of sites of national, state and regional significance within each biogeographic region.

	National	State	Regional	Total
Otways	2	3	5	10
Central Highlands	4	14	20	38
South Gippsland	2	4	5	11
East Gippsland	16	30	76	122
Total	24	51	106	181
% of sites reserved	68	47	24	36

This table illustrates the observation that, within a given region, the proportion of sites containing values of national, state or regional significance tends to be consistent. A small proportion, roughly one sixth (10% to 20%), of sites are considered to have national significance. In general about twice as many sites, roughly a third (25% to 40%), are considered to have state significance. The majority of sites identified in this project, roughly half to two thirds (45% to 65%) are considered to have regional significance. These proportions are consistent with the results of other studies, supporting the contention that site rating procedures are reliable and repeatable and employ objective criteria.

It should also be noted that a significant proportion of these sites are already protected within parks or other reserves or else safeguarded by current management policies within the dosed water catchments of the Board of Works. The above table includes an estimate of the proportion (by number not area) of sites already protected within the reserve system or safeguarded within Board of Works dosed catchments. These estimates were prepared by summing all sites and parts of sites reserved within each rating category in each biogeographic region. The results indicate that sites of national significance have the best current representation within the reserve system whilst sites of regional significance are only poorly represented within the reserve system. Geographically, the reservation status of sites identified in this project is far from uniform, with a great disparity between the status of sites in East Gippsland (22% reserved) and the Central Highlands (26% reserved) and those in South Gippsland (91% reserved) and the Otways (45% reserved).

Management Recommendations for Rainforest Sites

The State Conservation Strategy is explicit regarding the level of protection which, in general, should be accorded sites of biological significance. The Strategy states that

‘The Government will complete surveys of all sites or areas of ecological or scientific significance in the State and will take protective measures where appropriate. As a general rule, those sites significant at the State level or above will be preserved for nature conservation purposes and sites of regional or local significance will be protected wherever possible.’

The current protection by prescription (minimum 20 m or 40 m buffer) of rainforest in state forest, under the Code of Forest Practice, is considered to provide, minimal and doubtfully adequate protection for rainforest and is considered acceptable only for minor occurrences of local significance. Larger rainforest stands, defined as those which can be delineated by structural mapping using API at a scale of 1:100,000, are considered to warrant a minimum prescribed buffer of 100 m width.

In accordance with the State Conservation Strategy and the principle of catchment integrity for rainforest conservation, we recommend, on ecological grounds, that timber harvesting and prescribed burning be excluded from all designated sites of regional, state or national significance for rainforest.

Together with the three tiered prescriptive protection proposed for rainforest stands of local significance, (minimum prescribed buffers of 20, 40 or 100 m width according to width and size), and the management priority implied by the rating of sites of regional, state or national significance, our management recommendations provide a comprehensive six tiered approach to rainforest conservation throughout the state.

Accordingly, the Flora and Fauna Survey and Management Group has objected, through its representative on the Cutting Areas Review Committee, to all harvesting proposed within sites of significance for rainforest. In its deliberations the Committee has focused attention on those coupes proposed for harvesting in the 1990/91 season. Schedules 1 to 6 list all coupes proposed for harvesting in 1990/91 in the Wood Utilization Plans submitted by each Region concerned, to which objection has been raised on the grounds that they fall, wholly or in part, within designated sites of significance for rainforest.

It should also be noted that we object, in principle, to the continued harvesting of coupes already approved for harvesting (carry over coupes) where these fall within designated sites of significance for rainforest. These coupes have not been consistently indicated in the Wood Utilization Plans submitted to CARC by the various Regions and so have not been consistently identified in Schedules 1 to 6. In the case of Orbost Region only, carry over coupes which, on the advice of the Region, have yet to be harvested, but which were

approved for harvesting prior to the 1989/90 harvesting season, and which fall, wholly or in part, within sites of significance for rainforest, are listed in Schedule 7. Coupes approved for 1989/90 harvesting in Orbost Region, and which fall, wholly or in part, within sites of significance for rainforest, are listed in Schedule 8. An undetermined proportion of these coupes are likely to remain unharvested at the conclusion of the current season and to be carried over to future years. We therefore expect that a number of coupes listed in Schedules 7 and 8 will be rescheduled for harvesting in 1990/91. We request that all Regions be required, as a matter of urgency, to indicate the current status, with regard to harvesting, of all coupes already approved for harvesting, which fall, wholly or in part, within designated sites of significance for rainforest, with priority given to those within sites of national or state significance.

Potential Impact of Sites of Significance on Timber Harvesting Scheduled for 1990/91

Whilst it would be desirable to ascertain the long term impact of harvesting exclusion from all sites of significance for rainforest, as recommended above, some indication of the potential magnitude of the immediate or short term impact of such a decision is given by the number of coupes listed in Schedules 1 to 6. The following table summarizes the number of coupes, proposed for harvesting in 1990/91 by each Region in its Wood Utilization Plans recently submitted to the Cutting Areas Review Committee, which fall, wholly or in part, within sites of significance for rainforest.

	National	State	Regional	Total
Colac	6	3	1	10
Alexandra	0	9	1	10
Dandenong	4	5	2	11
Central Gippsland	0	6	17	23
Bairnsdale	0	1	9	10
Orbost	9	26	12	47
Total	19	50	42	111

This table suggests that the major conflicts between timber production and rainforest conservation in this State are concentrated in the Orbost and Central Gippsland Regions, involving forty-seven and twenty-three coupes respectively, with the greatest problems concerning the protection of sites of state and regional significance. Harvesting exclusion from sites of significance in Colac, Alexandra, Dandenong and Bairnsdale Regions would have a smaller and comparable impact on short term timber availability from each of these Regions, affecting ten or eleven coupes in each. These figures mask, however, the relative impacts of the recommended exclusions on the quantity and quality of the hardwood resource available from each Region. The above comparison clearly emphasizes the disproportionate impact of scheduled harvesting in Colac Region on rainforest areas of national significance, namely those within the catchment of the Aire River and its tributary Young Creek. These same forests contain a significant proportion of the Region's high quality ash resource. There are also significant clashes between harvesting proposals and nationally significant rainforest values in Dandenong Region (Upper Bunyip River Site) and Orbost Region (Brodrigg River, Martins Creek, Bemm River, Little Goolengook and Cobb Hill Sites). Rainforest conservation is unlikely to have a significant future impact on timber production in Yarram Region, where almost all identified sites of significance for rainforest are already protected.

The raw data in the above table, however, misrepresents the potential impact of rainforest conservation on proposed harvesting schedules for 1990/91, firstly by ignoring the number of instances where only a portion of the coupes listed in Schedules 1 to 6 fall within a site of significance. In the following table the number of coupes in each significance category is corrected to show the number of 'coupe equivalents' derived by summing the actual number of whole coupes and parts of coupes which fall within sites of significance for rainforest.

	National	State	Regional	Total
Colac	6	2.5	1	9.5
Alexandra	0	73	1	8.5
Dandenong	3.3	5	2	10.3
Central Gippsland	0	53	16	21.5
Bairnsdale	0	1	8	9
Orbost	8.3	22	9.7	40
Total	17.7	43.5	37.7	99

Secondly, a consideration in isolation, of the potential impact of harvesting exclusion from sites of significance for rainforest, obscures the tendency for features of biological significance or other conservation values to overlap and concentrate in certain regions and areas of the State. This is particularly well illustrated in the case of rainforest where prime occurrences tend to be nested within catchments equally significant also for the conservation of old growth eucalypt forests. The largest concentrations of both old growth eucalypt forests and of cool temperate rainforest in Victoria occur together in the Otways, Central Highlands and on the Errinundra Plateau in East Gippsland. These forests are especially significant also as faunal habitat (for example for Leadbeaters Possum and other arboreal mammals) and often have exceptional landscape and wilderness attributes. The lowland warm temperate rainforests in the Orbost Region are considered an indispensable component of the habitat requirements of Long-footed Potoroo, particularly during episodes of environmental stress, and proposed habitat management strategies for Long-footed Potoroo revolve largely around the rainforest conservation strategy of catchment protection advocated above.

A third and final consideration regarding the impact of our recommendations on harvesting proposals for 1990/91 is the requirement for flora and fauna surveys prior to harvesting in certain areas. These requirements have been variously driven by commitments under the 'pre-logging survey' policy, the National Parks Act and obligations to protect National Estate values and are in need of clarification and review.

Schedule 6 is annotated to indicate all coupes within Orbost Region which fall within areas of National Estate, Interim National Estate, Long-footed Potoroo Management Zones or which require, or are undergoing, survey. Forest areas in each of these categories is currently under moratorium pending the outcome of further studies or a review of relevant policies. Once exclusions for National Estate, Long-footed Potoroo and survey requirements are accounted for, and correction is made for the actual proportion of coupes which fall within sites of significance for rainforest, the true or residual impact of our recommendations on 1990/91 harvesting schedules for Orbost Region is the exclusion of only twenty-two 'coupe equivalents', less than half the number of coupes suggested by the table of raw exclusions above.

Similar considerations apply in the Central Gippsland Region where four coupes proposed for harvesting within the Upper Tyers Site of Significance for rainforest have already been excluded pending the outcome of a flora survey of the area. Considerable concern has also been expressed in a number of regards over the intensity of proposed harvesting within the catchment of the Thomson reservoir and on the slopes of the Baw Baw Plateau. One realistic way to reduce the impact of forestry activity in this sensitive area would be to exclude harvesting from the nine sites of regional significance (CH 28 to CH 36) delineated for rainforest in this area.

Once these exclusions in the Orbost and Central Gippsland Regions are accounted for, and correction made for coupes which fall only partially within sites of significance, the residual impact of our recommendations on 1990/91 harvesting schedules for the State is the exclusion of seventy-seven 'coupe equivalents'. This is the potential impact attributable solely to sites of significance for rainforest.

Policy Commitments and Obligations

A number of State Government and Departmental policy initiatives and commitments have a direct or indirect bearing on the issue of timber harvesting within sites of significance for rainforest.

The first is the Rainforest Policy which, as a component of the State Conservation Strategy, commits the Department to protect all rainforest from harvesting and other disturbances. The ambiguity regarding the legitimacy of the Department's amended definition of rainforest calls for a conservative approach to harvesting in the vicinity of rainforest and a moratorium on activity within communities which comply with the ecological definition of the Rainforest Technical Committee, as required by the Strategy.

The State Conservation Strategy further commits the Government to protecting all sites of national or state significance and, wherever possible, sites of regional significance.

The likelihood that Victorian rainforest communities will be nominated under the Flora and Fauna Guarantee Act implies that continued activity within areas (especially designated sites of significance) likely to be defined as critical habitat for rainforest communities is in conflict with the spirit of the Guarantee and should be avoided.

Through its participation in the National Rainforest Conservation Program, in co-operation with the Commonwealth Government, the State Government has an obligation to 'ensure careful management and protection of areas of rainforest', particularly of sites of significance identified by the rainforest study partially funded by the Commonwealth.

The Department also has an obligation to the community to maintain flexible options for consideration by the Land Conservation Council in current and forthcoming investigations. The Council is currently reviewing land use in the Corangamite and Melbourne (District 2) Study Areas. These reviews are likely to determine land use decisions affecting rainforest sites in the Otways and Central Highlands. In its Final Recommendations for the East Gippsland Area Review, the LCC also states that

'The Council will be conducting an investigation of rainforests in Victoria with a view to making recommendations on the range of uses for them and the way in which they should be protected through reservation. The rainforests in East Gippsland will be included in that investigation. Information collected by the Department of Conservation, Forests and Lands will provide a basic and important input.'

It is inevitable that sites of significance identified in this project, and the values associated with them, will form the focus of the Council's special investigation into the conservation status of Victorian rainforests and the adequacy of their representation within the current reserve system. Failure to protect sites of significance for rainforest from harvesting in the interim is likely to be seen as preempting the outcome of each of these investigations.

We recognise that the Department also has commitments under the Timber Industry Strategy and that commitments to the timber industry are likely to be difficult to meet, particularly in some Regions where contingency provisions are inadequate to cover harvesting exclusions for a variety of reasons, including protection of sites of significance for rainforest. In the event that in any particular Region the Department is unable to meet its commitments under the TIS and it is obliged to consider harvesting within sites of significance, then we recommend that the following guidelines be observed. In the spirit of the State Conservation Strategy, sites of regional significance should be assessed on a site by site basis and harvesting priority be given only to sites with a history of recent forestry activity. Within such sites harvesting should be approved only upslope of prior harvesting, preferably limited to ridgelines and upper slopes, and sub-catchment units containing rare or threatened species populations or other unique or special features should be avoided altogether. In general, no harvesting should be contemplated within sites of state or national significance, although a rare exception may be made where there is a demonstrable history of extensive recent harvesting. In all cases, harvesting within any designated site of significance must be excluded from a minimum prescribed rainforest buffer width of 100 m. In the event that a decision is made to permit harvesting within sites of significance, we recommend that CARC be reconvened to thoroughly reassess any proposals to harvest within individual sites of significance.

David Cameron
Rainforest Project Botanist
Flora and Fauna Survey and Management Group

DEPARTMENT OF CONSERVATION & NATURAL RESOURCES

Your Ref:

Our Ref: 17/91/4103
9 April, 1994

To: FMA Planning team, R. Rawson, G. Squires, D. Thomson, P. Sheehan, M. Kitchell, D. Parkes, D. Cameron, W. Peel, P. Fagg, T. Bartlett, K. Wareing, D. Holmes, A. Maclean, K. Rumba, R. Penny, R. Gisjbers, P. McHugh

From: Brian Thompson FMA Planner, East Gippsland.

Re: Discussion paper on Rainforest Conservation In East Gippsland

Please find attached a discussion paper that David Cameron and I have prepared. The paper represents a consensus on a suitable rationale and approach to rainforest conservation as part of the East Gippsland Forest Management Planning process. It is therefore an important step towards resolution of some, long running issues on rainforest conservation. The process described has been applied while developing the zoning scheme for the Plan.

The paper is intended as a first draft of a supporting document to the Plan. I have also attached draft text for the corresponding section of the Plan.

Your views on the content of this paper and the general approach would be appreciated by
13/5/94

PS. Only one map has been sent to each major work location. If you cannot get access to a copy and would like to, let me know and I will send you one.

East Gippsland Forest Management Plan
Discussion Paper No. 18

Rainforest conservation in East Gippsland

B.R. Thompson¹
D.G. Cameron²

1. Orbost, Gippsland Area
2. Flora Branch, Arthur Rylah Institute, Heidelberg

SUMMARY

Rainforest covers approximately 9600 ha (<1%) of public land in the East Gippsland Forest Management Area. Four rainforest classes are recognised, Cool Temperate, Warm Temperate, Cool/Warm Temperate Overlap, and Dry Rainforest Woodgate et al in (1994). Thirty-three percent occurs in National Parks and conservation reserves. Most of the balance is in State Forest where it is protected from logging by buffer strips of at least 20m width. Fuel reduction burning, road construction, recreation facilities and other activities are also excluded as far as is practicable. However the adequacy of these measures and the definition of rainforest have been the topic of debate in recent years. The East Gippsland Forest Management Plan is an appropriate mechanism to resolve some of these issues. This paper reviews rainforest conservation issues relevant to East Gippsland, in particular the proposed catchment based Sites of Significance for rainforest identified by Cameron (1990a,b). It goes on to outline an approach to rainforest conservation for consideration in the broader context of the East Gippsland Forest Management Plan.

The proposed strategy includes three levels of protection for rainforest in State Forest. In order of increasing protection these are:

1. **Prescriptions.** In accordance with the Code of Forest Practices (1989) 20 and 40 in buffers of non rainforest vegetation should continue to be retained between logging coupes and rainforest. The additional protection provided by steep and unproductive areas due to other constraints should also be recognised.
2. **Rainforest Priority Corridors.** These would be part of the linear reserve network being considered for wildlife conservation in the Forest Management Plan. Rainforest within these corridors would receive 100m buffers, and roading between stands would be avoided;
3. **Sub-catchment Protection.** The top level of protection for rainforest should be based on selected "core areas" from proposed Sites of Significance for Rainforest. Selection of these areas for protection in the Forest Management Plan should be based on the additional protection they provide other values, their disturbance history and the proximity of comparable values in existing National Parks and reserves.

It is anticipated that there would be substantial overlap between sub-catchment protection areas and areas required to satisfy other conservation goals in the Forest Management Plan (Sooty Owls, Long-footed Potoroo, representative areas of vegetation classes and Old Growth Forest).

Implementation of the proposed strategy through the Forest Management Plan combined with the National Park and reserve system should provide sub-catchment protection or 100m buffers for at least 60% of Warm Temperate and Cool Temperate Rainforest, and 90% of the rarer Dry and Cool/Warm Temperate Overlap Rainforest.

The strategy does not address the rainforest definition issue which is beyond the scope of the Forest Management Plan. However the recommended strategy would in any case, also protect most of the seral and transitional rainforest which the debate is over.

Fire is the major natural factor affecting rainforest conservation. Fire management strategies in the Forest Management Area are governed by the Fire Management Plans covering the former Bairnsdale and Orbost regions (Bartlett 1990, Long 1990). The Forest Management Plan therefore does not address fire management in detail. However the fire plans will be reviewed in 1996. The revised plans should place sub-catchments set aside for the highest level of rainforest conservation in priority 4 burning zones. That would mean that fuel reduction burning and other fire management activities would only occur after consideration of ecological factors and consultation with departmental biologists.

1. BACKGROUND

Two million hectares (20,000 km²) of rainforest are scattered in sheltered pockets along the eastern and northern seaboard of Australia covering only 0.25% of the continent (Seddon 1985). These remnants are living testimony to the origins of our flora in Gondwana. They have survived ice ages, an increasingly arid and fire prone environment, and most recently the onslaught of European settlement. The importance of these rainforests to biodiversity conservation can be judged by the fact that they include representatives of ~0% of Australian vascular plant families (Floyd 1989). Australian rainforests are also increasingly valued for their cultural, aesthetic, scientific and recreational values (Webb 1992).

Victorian rainforest is confined to small stands mostly less than 100 hectares, occurring in sheltered gullies and streams margins from the Otway Ranges through the Central Highlands to Wilson's Promontory and East Gippsland. Mature rainforest (which can be mapped from aerial photographs) covers approximately 16,000ha, less than 1% of Australia's rainforests. Despite being less extensive, diverse, or impressive than the tropical forests of Queensland or the Cool Temperate Forests of Tasmania, many plant and animal species are confined to, or centred on rainforest in Victoria. These small areas are an integral part of the extensive eucalypt forests of Eastern Victoria and contribute substantially biodiversity.

Cameron (1992) describes three sub-formations of rainforest in Victoria; Cool Temperate, Warm Temperate and Dry Rainforest which are further sub-divided into 14 ecological communities. Cool Temperate Rainforest is generally dominated by Myrtle Beech (*Nothofagus cunninghamii*) or Sassafras (*Atherosperma moschatum*), and occurs in mountainous areas with high rainfall. It includes the only Victorian representatives of 3 plant families, and 4 rare or threatened plant species. The more diverse Warm Temperate Rainforest is commonly dominated by Lilly Pilly (*Acmena smithii*) or Kanuka (*Tristanopsis laurina*) and occurs in moderate to low rainfall areas. It includes the only Victorian representatives of 11 plant families, and 37 rare or threatened plant species (FIS 1994). Dry rainforest is most commonly dominated by Sweet Pittosporum (*Pittosporum undulatum*). It is closely related to Warm Temperate Rainforest but is less diverse and confined to rocky sites which provide a fire free habitat. These three sub-formations are recognised by Woodgate *et al* (1994) who revised the vegetation mapping of East Gippsland and identified 44 Ecological Vegetation Classes. They also identified Cool/Warm Temperate Overlap Rainforest as a distinct vegetation class comprising mixed cool and warm temperate species. Area statements and proposed strategies outlined in this paper refer to these four types.

Table 1. Distribution and area (hectares) of Victorian rainforest (Source: GIS corporate library)

Rainforest type	Otways	Central Highlands	Wilson's Promontory	Strzelecki Range	East Gippsland*	Total area
Cool Temperate					(2560)	
Warm Temperate					(6967)	
Cool/Warm overlap	0	0	**	**	(265)	
Dry	0	0	0	0	(11)	
Total area					(9803)	

*. Figures in brackets are for the Forest Management Area. Rainforest in East Gippsland includes some areas outside the Forest Management Area most notably at Lakes Entrance and on the Mitchell River

** Small areas exist but they have not been mapped

From Table I it is clear that most (***) of Victoria's Warm Temperate Rainforest occurs in East Gippsland where it is scattered across the lowlands and foothills from sea level to 700m altitude. Cool Temperate Rainforest in East Gippsland occurs on moist gullies and sheltered slopes from about 600 m to 1200 m elevation. Its distribution is centred on Errinundra Plateau with outlying stands in the Rodger River catchment and Nunniong Plateau. Map *** (1:250,000) illustrates the distribution of rainforest across the East Gippsland Forest Management Area.

Table 2. Approximate area (ha) and reservation status of rainforest in the East Gippsland Forest Management Area (Source: GIS 1993)

Rainforest class	State Forest	Parks & reserves	Private Land	Total	% in Parks & reserves
Cool Temperate	1487	1073	0	2560	42
Warm Temperate	4919	2048	??	6967	29
Cool/Warm overlap	158	107	0	265	40
Dry	0	11	0	11	100
Total	6564	3239	?	9803	33

2. POLICY

The Land Conservation Council (LCC 1986) state that rainforests occurring in State Forest should be conserved by buffers and, that “*permanent protection be provided by a procedure to be established by the council in a future investigation of rainforest.*” A procedure for defining and applying buffers has subsequently been devised and implemented by the department but the “future investigation” has not eventuated.

The Timber industry Strategy (Govt. of Victoria 1986) specifies “*the adoption of a rainforest definition together with appropriate prescriptions to ban timber harvesting and other detrimental uses*” as one of the key points under environmental care principles (p41). It further lists rainforest policy as one of a series of points “*that will be used to ensure that timber harvesting operations are undertaken in a controlled, responsible and environmentally and socially acceptable manner*” (p89)

The government subsequently produced a rainforest conservation policy: Victoria’s Rainforests: An Overview (CFL 1987) which established a rainforest definition and more specific policy goals for rainforest conservation in Victoria. These were to:

- conserve rainforest
- maintain genetic diversity and potential for evolutionary development within Victoria’s rainforest ecosystems
- increase public appreciation of the value of rainforest

Several projects established under the joint Commonwealth-State National Rainforest Conservation Program have worked towards achieving those goals. Projects relevant to East Gippsland include:

- a statewide rainforest survey and mapping project including the identification of areas of special significance for rainforest
- research into the effects of logging on rainforest ecotones (Sutter in prep), wildfire impacts at Jones Creek (Chesterfield 1989), and the dynamics of mixed forests on the Errinundra Plateau (Chesterfield in prep).
- establishment of a rainforest information centre at Orbost, production of brochures, and construction of self guided rainforest walks at McKenzie River, Drummer and Errinundra National Park;
- a proposed management plan for Errinundra National Park (CFL 1989b)
- propagation of rare rainforest species

The Code of Forest Practices (CFL 1989b) specifies that “*Timber harvesting operations must be excluded from a buffer area surrounding rainforest. Where the rainforest is generally linear in shape, such as along gullies and streams, the minimum width of the buffer is to be 20 m. Elsewhere the*

minimum buffer width is to be 40 m Care must be taken to ensure that no tree is felled into the buffer. Trees which are likely to disturb the buffer must not be felled.

Cool Temperate Rainforest has been listed under the Flora and Fauna Guarantee Act 1988. The government is therefore obliged to produce an Action Statement outlining how it will be conserved. It is important that this document be consistent with other policy and planning documents such as Forest Management Plans.

The Timber Industry Strategy (Govt. of Victoria 1986) provides the policy basis for Forest Management Plans which are to:

“address the full range of values and uses in State Forest including water catchments, flora and fauna, landscape and soil protection, as well as timber production, grazing, and recreation.”

The Forest Management Planning process is clearly the most appropriate mechanism for addressing most of the unresolved concerns over rainforest conservation in East Gippsland.

3. RAINFOREST CONSERVATION ISSUES

3.1 Definition

The departments rainforest definition given in Victorias Rainforests - An Overview (CFL 1987) is as follows:

“Rainforest is defined ecologically as closed broadleaved forest vegetation with a more or less continuous rainforest: tree canopy of variable height, and with a characteristic composition of species and life forms. Rainforest canopy species are defined as shade tolerant tree species which are able to regenerate below an undisturbed canopy, or in small canopy gaps resulting from locally recurring minor disturbances, such as isolated windthrow or lightning strike, which are part of the rainforest ecosystem. Such species are not dependant on fire for their regeneration..”

While there is general agreement with this definition for mature rainforest, concerns have been expressed that it does not include emerging rainforest. A broader definition would include some of the vegetation which is transitional between rainforest and eucalypt forest.

The implication of this is that transitional and seral rainforest are not defined as rainforest and are therefore potentially available for logging in State Forest. The main areas affected by this are:

- areas in the Otways where eucalypts emerge over a rainforest understorey;
- small areas of mixed forest on Errinundra Plateau;
- ecotones between rainforest and eucalypt forest in timber harvesting areas;
- areas of secondary rainforest, ie areas with rainforest elements that would become rainforest in the absence of disturbance.

It has been suggested that logging and subsequent burning of these areas may curtail rainforest development and lock them into the eucalypt cycle. Conversely it is argued that conservation reserves, rainforest buffers, streamside reserves, steep areas, and other areas that will never be logged protect sufficient transitional and seral rainforest. A symposium has been held on the issue (Gell and Mercer 1992) and a detailed definition prepared (Cameron 1992). if the rainforest definition is to be altered however, it is a statewide issue beyond the scope of the Forest Management Plan to resolve.

3.2 Sites of Significance for Rainforest

As part of the National Rainforest Conservation Program catchment areas considered important for rainforest conservation were identified across Victoria. These have been termed "Sites of Significance for Rainforest" and ranked significant at a National, State or Regional level in accordance with the criteria of Parkes (1990). Rainforest stands outside these areas are considered locally significant. One hundred and eighty-one proposed Rainforest Sites of Significance were identified across the state, 97 in the East Gippsland Forest Management Area (Table 3). Map 1 shows their location and a summary of their values is provided in Appendix 1.

Table 3. Number and area of Sites of Significance for Rainforest in. the East Gippsland Forest Management Area

	National No. (ha)	State No. (ha)	Regional No. (ha)	TOTAL No. (ha)
State Forest				62
National Parks & conservation reserves				32
Private Land				3
TOTAL				97

Note: Where sites cover more than one land category they have been allocated to the category occupying most of the site.

These sites highlight geographic localities where it is suggested that rainforest conservation be given a high priority; A report detailing site values is being prepared (Cameron in prep). It is important to recognise that these sites are generally large catchment areas and that only a small proportion of their area actually supports rainforest. Delineation of proposed Sites of Significance for Rainforest was based on catchment and sub-catchment units for the following reasons:

- rainforest generally occurs in sharply dissected terrain in which catchment units define natural, conservation and management units;
- the linear or dendritic configuration of most Victorian occurrences of rainforest renders them susceptible to edge effects and incremental marginal attrition;
- most rainforest depends on topographic protection from fire generally by the operation of a moisture differential which can be vulnerable to disruption by human activity;
- Victorian rainforests exist in a delicate and dynamic ecological balance with their surrounding eucalypt forests. Major impacts on the structure composition and fire behaviour within eucalypt forests adjoining rainforest may affect this delicate interaction, even though it may take many years for the effects to manifest.
- rainforest has one of the longest periods of recovery following disturbance of any vegetation type.

The management status of proposed sites has been the topic of some debate. Management suggestions have included:

1. Exclusion of all timber harvesting and fuel reduction burning, the rationale being that:
 - a conservative approach to rainforest conservation is warranted in the most significant rainforest areas;
 - representative samples of rainforest in an undisturbed context should be conserved; and
 - relatively undisturbed subcatchments would provide the best long term protection for rainforest in a forest environment subject to disturbance from timber harvesting, roading and fuel reduction burning.
2. A sliding scale of buffers. This approach involves assessing the potential impact individual logging coupes on site integrity as part of the Wood Utilisation Planning process. Buffers would then be applied in accordance with the following table:

Potential impact Site rating	High	Medium	Low
National	Harvesting exclusion	Harvesting exclusion	200-250 m
State	Harvesting exclusion	150 m	100 m
Regional	Harvesting exclusion	75 m	40 m
Local	20/40 m	20/40 m	20/40 m

3. Manage rainforest in accordance with existing prescriptions. Landscape scale protection of rainforest can be seen as an unnecessarily conservative approach in multiple use State Forest. Assumptions about the effect of logging adjacent to rainforest have also questioned (FFPAG 1990). It is argued that protection of rainforest by prescribed buffers in State Forest is already conservative and that a substantial proportion of rainforest receives even better protection in conservation reserves (see table 2).

An interim management arrangement is based on a modified version of option 2 outlined above. Firstly it excludes harvesting from sites of national significance provided viable alternatives can be found to meet timber supply commitments. Secondly proposed logging coupes in sites of state or regional significance are prioritised according to their potential impact on site integrity. Where it is not practicable to find alternative coupes, those with the lowest potential impact have been harvested first. This process is fairly cumbersome and ad hoc, driven by the placement of logging coupes rather than an objective overview of Sites. A further problem is that the impact of a logging coupe on sections of National sites that are disturbed or remote from rainforest stands, is less than it would be on some areas of equivalent size within State or Regional sites. Therefore a logging coupe in certain parts of a National Site may have little impact on site integrity, whereas a coupe in a regional site based on a small undisturbed subcatchment could substantially compromise the site integrity.

Clearly the official status of proposed Sites of Significance for Rainforest must be resolved at a state level, and their management determined by multi-disciplinary planning mechanisms such as Forest Management Plans. This paper outlines a proposed management approach developed during preparation of the East Gippsland Forest Management Plan.

3.3 Fire

Fire is the principal natural factor determining the extent of rainforest and since clearing of rainforest no longer occurs on public land in Victoria, fire will remain the most important factor affecting rainforest conservation in East Gippsland.

Fire and fire management activities may affect rainforest in the following ways:

- Rainforest will be replaced by eucalypt forest if it is repeatedly burnt (only likely to occur through wildfire)
- Fuel reduction burning and regeneration burns following logging may affect the rainforest - eucalypt boundary and prevent rainforest expansion
- Wildfire suppression activities (mainly construction of bulldozed fire breaks) could disturb rainforest
- Fire prevention and suppression may enhance rainforest conservation by reducing the incidence and extent of major fires.

Fire management strategies in the Forest Management Area are governed by the Fire Management Plans covering the former Bairnsdale and Orbost regions (Long 1990, Bartlett 1990). The issues listed have been addressed and balanced against other fire management objectives during preparation of these plans. Management plans for Errinundra, Snowy and Croajingolong National Parks have also addressed fire management in significant rainforest areas. The three year burning plans which are working documents were amended as part of the park planning processes.

The Fire Management Plans provide for rainforest conservation in three main ways. First, through the overall aim of reducing the incidence and extent of wildfires. Second, by including some significant rainforest areas as part of major "assets" and providing specific strategies to protect them from wildfire

(eg. the Errinundra Plateau which has high environmental and timber values, is protected by a strategic burning corridor and maintenance of strategically important tracks). Finally numerous significant rainforest areas are designated as priority 4 zones in the fuel reduction burning strategy. This highlights their environmental significance to ensure that inappropriate burning regimes are avoided.

While considerable work has gone into the fire plans, specific reasons for the location of various zones have not been well documented. With the enormous amount of information available on East Gippsland, any number of values, or tradeoffs between competing objectives, might pertain to a particular zone. As burning practices continue to be refined, documentation will be of increasing importance so that arbitrary decisions do not undo carefully considered, but undocumented strategies.

The Forest Management Plan will not address fire management in detail. However it will identify and reconcile any conflicts that occur between it and the Fire Plans. For example each place where a strategic burning corridor in the fire plan coincides with the Special Protection or Special Management Zone (see 3.1) in the Forest Management Plan, will be examined. If there is a clash in management intent then either the burning corridor or the forest management zone will be altered. If this is not readily achieved, then significant rainforest areas of strategic importance for fire protection should be placed in the priority 4 burning zone which highlights the need to consider ecological constraints before burning or constructing tracks in those areas.

3.4 Logging of eucalypt forest adjacent to rainforest

It has been suggested that logging and subsequent burning of eucalypt forest adjacent to rainforest favours sclerophyll vegetation and prevents the upslope expansion of rainforest. Chesterfield (1988) observed warm temperate rainforest species invading wet eucalypt forest in the upper Brodribb River catchment areas and suggested that the area would become rainforest in the absence of fire or other disturbance. By perpetuating sclerophyll vegetation close to the rainforest margin the gradient between disturbance mediated sclerophyll vegetation and fire sensitive rainforest is possibly made steeper. This could make the rainforest more susceptible to subsequent fires and cause marginal attrition. Logging prescriptions require that a minimum buffer of 20 metres be retained between logging coupes and linear strips of rainforest and 40 metres for larger rainforest patches. In many situations much larger buffers are left because of other factors such as steep slopes. A recent research project conducted by CNR staff at Orbost examined the rainforest eucalypt boundary at a range of sites. The results should help determine whether existing buffers provide adequate protection for rainforest (Sutter in prep).

Another suggestion is that rainforest surrounded by eucalypt regrowth forest is more susceptible to damage from wildfire than rainforest surrounded by mature forest. A running crown fire in a tall, mature forest may jump a rainforest gully causing minimal damage, while a fire of similar intensity in a shorter, regrowth forest could engulf the rainforest. Conversely the generally lower fire intensity in regrowth forests compared with mature forests, and the better track network in logged areas may improve the protection of rainforest from wildfire. Given the many variables governing both fire behaviour and the response of vegetation to fire, both hypotheses could be difficult to test.

3.5 Road construction

Construction and maintenance of roads for fire protection, timber harvesting and recreation is a routine part of forest management. Most new roads are built to provide access to timber, and are constructed in accordance with the Code of Forest Practices (CFL 1989a). While every effort is made to minimise the number of new stream crossings and to avoid roading through or adjacent to rainforest, sometimes there is no practicable alternative. Road construction through rainforest can have undesirable effects including the introduction of weeds, disruption of the rainforest canopy and possibly introduction of pathogens. Secondary rainforest species or sclerophyll species tend to regenerate on the road verge. Subsequent disturbance through maintenance or upgrading may effectively divide the original rainforest stand in two. Stream crossings between adjacent mature rainforest stands may disturb emerging rainforest and prevent them becoming a single larger stand. While these problems cannot be entirely avoided they could be further minimised by identifying the most important rainforest stands or groups of stands and highlighting these for special protection. Where there is no realistic alternative to roading

through rainforest then the width of the disturbed corridor should be kept to a minimum, canopy closure over the road should be maintained, and special attention paid to drainage, surface quality, and follow up regeneration and weed control in disturbed areas.

4. PROPOSED RAINFOREST CONSERVATION STRATEGY

4.1 Principles

- The current departmental rainforest definition and 1:100 000 mapping will be used to identify rainforest areas for strategic planning. It is beyond the scope of the Forest Management Planning process to change the rainforest definition. However the conservation strategy in the plan will protect substantial areas of seral and transitional rainforest not strictly covered by the current definition. Forest officer training, field identification of rainforest, and designation of 20m and 40m buffers will be carried out in accordance with existing policy and locally established procedures.
- the plan will specify a range of protective measures for rainforest in State Forest ranging from 20m and 40 m buffers through to sub-catchment protection for significant aggregations of rainforest stands with high integrity, an old growth forest context and long term viability;
- proposed Sites of Significance for Rainforest will be the primary basis for determining priority areas for rainforest conservation. Timber harvesting will not be excluded from these sites in their entirety. Rather they will be used to highlight rainforest areas requiring more detailed planning and careful management;
- the level of protection specified in the plan will be based on the significance of rainforest values at a particular site, their likely sensitivity to other forest uses (mainly timber harvesting), their representation in the existing conservation reserve system and the disturbance history of the area;
- designation of areas for conservation of other values will incorporate rainforest where appropriate. In particular conservation of Sooty Owl (*Tyro tenebricosa*) is complementary to rainforest conservation. Linear reserves of an average 200m width designated primarily for wildlife conservation will also provide enhanced buffers for rainforest in a number of areas.
- the Plan will not address fire management in detail. This is dealt with by the Orbost and Bairnsdale Region Regional Fire Protection Plans (Bartlett 1990, Long ***) which are due for review in 1996 The Forest Management Plan is primarily concerned with determining management priorities in different parts of State Forest through the forest management zoning scheme. It will therefore identify areas where rainforest conservation has highest priority.

4.2 Identification of core zones within proposed Sites of Significance for Rainforest

In order to facilitate decisions on management of Sites of Significance for Rainforest, 'core zones' been identified in each site. Core zones are based on:

- the largest individual rainforest stands or highest concentration of stands within a site, and the surrounding eucalypt forest;
- rainforest stands surrounded by old growth forest as defined by Woodgate et al (1994). Areas with substantial past disturbance were excluded.
- subcatchment boundaries or logical management boundaries such as roads or topographic features.

Where it was difficult to identify a single core zone within a site, sites were sub-divided into units and prioritised according to their importance for site integrity. Maps 1 to 3 summarise this work.

Core zones provide a more detailed picture of the most important areas for rainforest conservation in East Gippsland. Core zones will be, considered for inclusion in the Special Protection Zone in the Forest Management Plan. The relative importance of core zones from different sites is provided, by the site ranking (ie. national, state or regional).

It should be stressed that it is unlikely that all core zones will be included in the Special Protection Zone. The final decision on areas included will depend on achieving an accepted balance between timber production and conservation in State Forest. However identification and prioritisation of core zones will facilitate choices to be made.

4.3 Strategy

The rainforest protection provided by the National Park and reserve system should be supplemented by the zoning system so that at least 60% of Warm Temperate and Cool Temperate Rainforest receive either sub-catchment protection or 100m minimum buffers. All of the rarer Dry Rainforest and Cool/Warm Temperate Overlap Rainforest will be included in the Special Protection Zone. These targets can be achieved by providing rainforest protection at three levels.

1. **Prescriptions.** Where logging occurs adjacent to rainforest, buffer strips of 20 or 40 metre minimum width should be retained, in accordance with existing prescriptions and the Code of Forest Practices (CFL 1989b). It is recognised that larger buffers are effectively provided in areas that are steep or unsuitable for timber production;
2. **Rainforest Priority Corridors.** A number of significant rainforest stands should be placed in the linear reserve network established by the Forest Management Plan. Linear reserves are proposed as part of the Special Protection Zone and would have an average width of 200m. Linear reserves coinciding with rainforest of high significance should be designated Rainforest Priority Corridors. Rainforest in these corridors should receive 100m minimum buffers and road crossings avoided wherever possible. Designation of these corridors recognises the importance of conserving good examples of a sequence of adjacent rainforest stands and the emerging rainforest between.
3. **Sub-catchment protection.** The National Park and reserve system already provides this level of protection for many rainforest areas. In State Forest selected "core areas" identified in rainforest sites of significance (see 4.2 above) should be placed in the Special Protection Zone based on the following criteria:
 - All core areas from Nationally significant sites should be included. Core areas from State and Regional sites should be included where they satisfy the other criteria;
 - protection of the core area helps fulfils the 60 % representation target and other conservation targets established in the Forest Management Plan (eg. Sooty Owl, Long-footed Potoroo, representation of vegetation communities or Old growth forest);
 - a geographic spread of areas with sub-catchment protection should be provided across the Forest Management Area. For example the core area of a regionally significant site in an unsurveyed forest management block where there is relatively little area in the Special Protection Zone, should take precedence over the core area of a site significant at a state level adjacent to a National Park protecting comparable rainforest areas; and
 - core areas should be substantially undisturbed.

4.4 Strategy context

This proposed approach to rainforest conservation should not be seen as a stand alone strategy. Rather it is proposed as an integral part of the conservation strategy in the Forest Management Plan.

The zoning scheme set out in the Forest Management Plan is intended to be flexible so that new information can be accommodated as it comes to light. This strategy may need to be reviewed when research on rainforest buffers is complete, or other information becomes available.

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