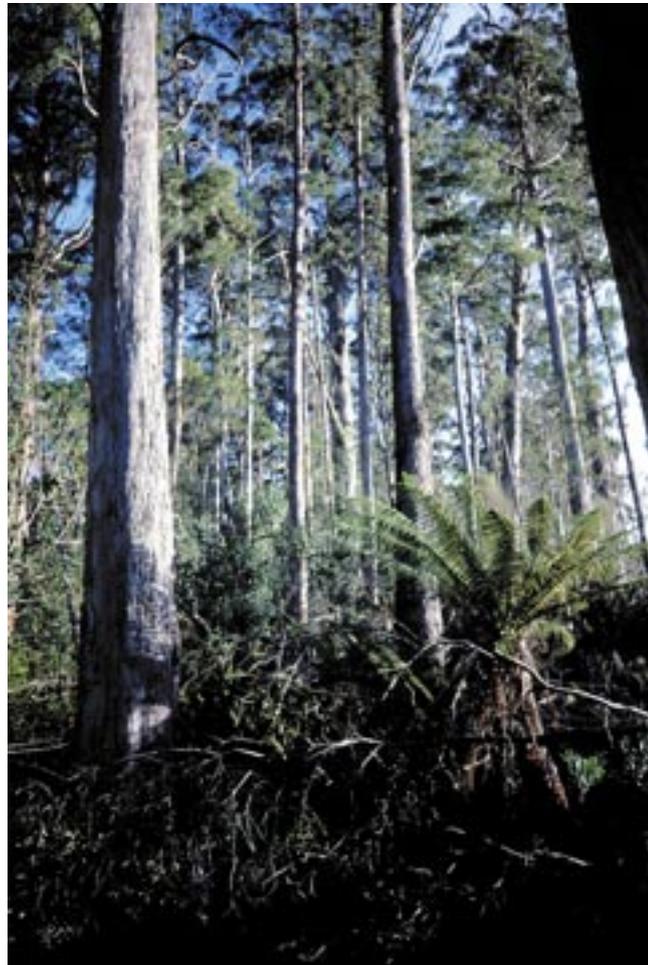


Forest Practices Board

Annual
Report
2001–2002



Forest Practices Board

Annual Report 2001–2002

A report on the operations of the Forest Practices Board to the Minister for Economic Development, Energy and Resources and to be laid before each House of Parliament as required under section 4 of the *Forest Practices Act 1985*.

Prepared by the Forest Practices Board

30 Patrick Street

Hobart, Tasmania, 7000

phone (03) 62 337966

fax (03) 62 337954

e-mail: info@fpb.tas.gov.au

www.fpb.tas.gov.au



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Report of the Chair, Forest Practices Board

I have pleasure in providing the statutory reports of the Forest Practices Board.

The Board reports under Section 4E(1)(b) of the *Forest Practices Act* that the implementation and effectiveness of forest practices plans was generally above the nominated standard. The Board has identified several areas where further improvement by forest managers is required, particularly in relation to independent operations on private property.

The Board reports that under Section 4C(fa) of the *Forest Practices Act*, Tasmania's native forest estate has been maintained at a level equivalent to 97.7% of the native forest area that existed in 1996. The Board reports that the current native forest area is well in excess of the minimum thresholds within all bioregions. The Board notes that the level of conversion of some communities is approaching the thresholds. Action to maintain all communities in accordance with the Permanent Forest Estate policy is being undertaken by the Board.

The Board reports that a reasonable level of compliance is being reported through certificates lodged pursuant to s.25A of the *Forest Practices Act* by applicants upon the expiry of Forest Practices Plans. The Board notes that there has been a substantial improvement in the rate of lodgement of certificates but that the lodgement of certificates, particularly by

the non-industrial private sector is still not acceptable. The Board is taking further action to ensure that all sectors fully comply with the requirement of the Act.

The Board is pleased to report, in accordance with Section 4E(1)(a) of the *Forest Practices Act*, that the forest practices system in 2001/2002 satisfied the principle of self-funding.

The Board reports that the independent regulatory functions of the Board were funded by the income received under s.44 of the *Forest Practices Act* in 2001/2002.

The Board reports that Ken Felton resigned as a member of the Board in November 2001. Ken made a valuable contribution to the forest practices system, serving as inaugural Chair of the Board upon its inception in 1994. He is replaced by Dr Humphrey Elliott, who brings to the Board outstanding expertise and experience in forest science, research and management. I thank the members of the Board, the Chief Forest Practices Officer and staff for their continued dedication and commitment to Tasmania's forest practices system. I also acknowledge the outstanding work that is done by forest practices officers and others within the forest industry to ensure that the self-regulatory aspects of our system deliver the highest operational standards.

Kim Evans
Chair, Forest Practices Board

Report of the Chief Forest Practices Officer

Tasmania's forest practices system continued to evolve in 2001/2002, with major legislative changes that widen the scope of the system to include tree clearing and the harvesting of firewood and tree ferns. The legislation relating to tree clearing prescribes how clearing may be undertaken, by application of the Forest Practices Code to minimise any adverse environmental impacts. Coupled with the legislation is the policy on the maintenance of the permanent forest estate, which prescribes whether a particular forest may be cleared or not. This policy is currently under review, with an expectation that higher levels of retention will be required for rare and endangered communities. There are challenges ahead to ensure that the revised policy has the support of all sectors within the Tasmanian community.

A major activity during 2001/2002 involved the compilation of information for reporting on sustainable management and on progress with the implementation of Tasmania's Regional Forest Agreement. Tasmania is very well placed to report on sustainable management under the set of criteria and indicators that have been agreed with the Commonwealth Government as part of national reporting under the international Montreal Process. However, there are clearly some areas where improved information and actions are required. Most relevant to the forest practices system is the need for improved reporting on reforestation. Reporting of reforestation outcomes on public land is very good. Some excellent work is being done to verify reforestation success on private land, but very little of this work is publicly reported. Private organisations must accept the need for transparent reporting of reforestation success, as this is an essential fundamental of any credible and meaningful report on sustainable forest management.

During the year, I travelled to the USA to study forest regulation in the States of Virginia and South Carolina. Forest management in these States operates under purely self-regulatory systems, with no governmental regulation. The self-regulatory system works very effectively for two reasons.

Firstly, the forest industry has adopted a certification system (Sustainable Forestry Initiative), which represents an excellent commitment to act in a responsible and accountable manner. The SFI has a set of performance indicators against which it reports. Such transparent reporting by the industry is critical for community acceptance of self-regulation. On this note, it is pleasing

to see that Forestry Tasmania has released its first public report on sustainable forest management. Private companies should produce similar reports. The new Australian Forestry Standard represents an excellent opportunity for improving how forest managers may report on environmental and social performance.

Secondly, the southern States have a very strong commitment to logger training. Whilst not legally required, it is virtually mandatory through the self-regulatory application of the SFI. The training programs involve an excellent partnership between dedicated professional educators (from educational institutions) and practical, experienced instructors (from industry and forestry departments). In Tasmania, many forest operators are skilled and competent. However, we also have inadequately trained operators, who are associated with poor performance and the majority of breaches. We can no longer allow poorly skilled people to operate. I believe that we need a mandatory program for the training and accreditation of forest workers. This would be best achieved through an industry initiative. In the absence of that, the Board will be forced to consider statutory requirements.

Overall, America is seeing the same changes in community values that we are trying to deal with in Australia. Social issues such as visual landscape, aesthetics, smoke management and chemical use are becoming more important and clearer planning rules are required. There is no doubt that forest management must become far more responsive to the social impacts of forestry operations, particularly within the urban-forest interface and rural-residential zones. The Forest Practices Code prescribes the minimum requirements for consultation and communication in relation to forest practices. The community is increasingly demanding better engagement and information with respect to forestry operations. Industry needs to go beyond the minimum legal requirements.

The continuing evolution and improvement of our forest practices system has been achieved through excellent cooperation among forest managers, scientists, landowners and forest workers. The success of our system stems from the support of these parties, and from the outstanding professionalism and dedication of our forest practices officers and staff.

Graham Wilkinson
Chief Forest Practices Officer

Part 1: report on the Board's statutory functions

1. Administration of Forest Practices

1.1 Forest Practices Board

The Forest Practices Board is an independent body set up by the *Forest Practices Act* (1985) that has responsibility for advancing the State's forest practices system and fostering a cooperative approach in developing policy and management in forest practices matters. The objective of the



Forest Practices Board members, left to right: Ross Wainig, Roger Chalk, Kim Evans (Chair) Dr Humphrey Elliott and Dr Peter Volker.

State's forest practices system is to achieve the sustainable management of public and private forests. The statutory functions of the Board as laid down in s.4C of the Act are to:

- (a) to advise the Minister on forest practices policy in respect of both Crown land and private land;
 - (b) to regularly advise and inform the Minister on its work and activities under *Forest Practices Act*;
 - (c) to advise the Minister on the operation and review of the Act;
 - (d) to issue and maintain the Forest Practices Code;
 - (e) to oversee standards for forest practices plans;
 - (f) to oversee the administration of private timber reserves by Private Forests Tasmania;
 - (g) to monitor and report to the Minister on harvesting, the clearing of trees and reforestation activity in relation to the maintenance of a permanent forest estate;
 - (h) to oversee the training of forest practices officers;
 - (i) to make a recommendation on the appointment of the chief forest practices officer and to appoint forest practices officers;
 - (j) to perform such other functions as are imposed on it by or under this or any other Act;
- (a) to perform any prescribed functions.
- The forest practices system is based upon a co-regulatory approach involving a balance between self management by industry and independent oversight by the Forest Practices Board. The Board reports to the Minister for Economic Development, Energy and Resources.
- The membership of the Board in 2001/2002 was:
- (a) Secretary of the Department responsible for the *Environmental Management and Pollution Control Act 1994* – *Kim Evans* (Chair)
 - (b) Director of Private Forests Tasmania appointed under s.8(1)(c) of the *Private Forests Act 1994* (being a person with expertise in forest or related sciences); – *Dr Peter Volker*
 - (c) Director of Forestry Tasmania appointed under s.12E(1)(b) of the *Forestry Act 1920* (being a person with expertise in forest or related sciences and knowledge of and experience in forestry); *Ken Felton* (to November 2001) – *Dr Humphrey Elliott* (from December 2001)
 - (d) a person having expertise and knowledge of local government, who is a representative of a municipal area in which forestry is a major land use; – *Roger Chalk*

- (e) a person having expertise in the harvesting and processing of timber.

Ross Waining

The Chief Forest Practices Officer attends all meetings of the Board.

The Board had 12 meetings during the year, including a field inspection of a proposed private timber reserve and a joint meeting with the Board of Private Forests Tasmania.

Ken Felton retired as a member of the Board in November 2001, after having served as inaugural Chair since the Board's inception in 1994. The Board formally acknowledges Ken's contribution as Chair during the Board's development into an independent statutory authority. Dr Humphrey Elliott was welcomed as the new member in December 2001.

Qualifications, other relevant positions held and declaration of interest by members

- Kim Evans – B.Sc. (Hons)
 - Director, National Parks and Wildlife Service
 - Chair, Board of Environmental Management and Pollution Control
- Roger Chalk AM – Mayor and Councillor, Waratah Wynyard Council
 - Chair, Local Government Forestry Consultative Committee
- Humphrey Elliott – Ph. D. (Univ. Sydney), B.Sc. (Forestry) (ANU), Dip. Agric. Entomology (Univ. Sydney)
 - Director of Forestry Tasmania and Chair of the Environment, Health and Safety Committee
 - Member Institute of Foresters of Australia
 - Member Australian Entomological Society
- Peter Volker – Ph. D. (Univ. Tas), B. Sc (Forestry) (ANU), Grad. Dip. Sc. (Forestry)
 - Director of Private Forests Tasmania
 - Member Institute of Foresters of Australia
 - Member Association of Consulting Foresters of Australia

- Member Society of American Foresters
- Director Total Sylvan Enterprises P/L
- Ross Waining - B.Sc. (Forestry) (Univ. Sydney) Dip. For (AFS)
- Negotiator, Private Forests Reserve Program, DPIWE
- Member Compliance Committee Ausforestry P/L

Activities

The Board reviewed and updated its Strategic Plan during the year. Major policy issues that were dealt with by the Board during the year included:

- Amendment of the *Forest Practices Act* to regulate tree clearing, the harvesting of tree ferns and to provide for conservation covenants where compensation is paid to protect values excluded from harvesting as result of the refusal of a private timber reserve
- Preparation of the draft State of the Forests report and background information for the five yearly review of progress with the implementation of the Regional Forest Agreement
- The initiation of an independent review of the Board's protocols for carrying out compliance audits
- The commissioning of studies into the impact of forestry operations on catchment hydrology
- Input into the review of the policy on the permanent forest estate
- Consideration of a strategic approach to the management of visual landscape.

The Board has two standing audit committees as follows-

1. Compliance Audit Committee – this committee reviews the methodology and protocols used to conduct the Board's compliance audits (see section 7.3 of this Report). The committee comprises Humphrey Elliott (Chair), Ross Waining, Peter Volker and Graham Wilkinson.

2. Investigations Audit Committee – this committee audits the investigations conducted by the Board into alleged breaches to ensure that the required standards of rigour, fairness and consistency are maintained. The Committee comprises Ross Waining and Peter Volker.

1.2 Forest Practices Advisory Council

The functions of the Forest Practices Advisory Council are to advise the Board on: reviews of the *Forest Practices Act* and



Members of the Forest Practices Advisory Council: from left to right; Dr Alastair Richardson, Dr Lynne Powell, Mark Leech, Ross Waining (Chair), Dr Hans Drielsma, Peter Taylor

Code; financial matters including self funding and the effectiveness of forest practices administration; operations and research.

Members of the Council in 2001/2002 were:

- (a) the chairperson of the Board, or that person's nominee – *Ross Waining* (Chair)
- (b) a person with knowledge of the State's resource management and planning system, nominated by the Secretary of the responsible Department in relation to the *Environmental Management and Pollution Control Act 1994 John Pretty* (to November 2001, – *Dr Lynne Powell*, nominee from December 2001)
- (c) a person with knowledge of administration and legislation in

relation to private forests, nominated by Private Forests Tasmania – *Peter Taylor*

- (d) a person with knowledge of administration and legislation in relation to multiple use forests, nominated by the Forestry corporation – *Dr Hans Drielsma*
- (e) a person with expertise in, and experience of, forest issues in relation to harvesting and processing – *Andy Corbould*
- (f) a person with expertise in, and experience of, forest issues in relation to forest conservation – *Dr Alistair Richardson*
- (g) a person with expertise in, and experience of, tree growing on private land – *Mark Leech*

The Chief Forest Practices Officer attends all meetings of the Advisory Council.

Five meetings were held during the year. The major issues dealt with by Council during the year included:

- best practice environmental management
- fauna technical notes
- the draft tree fern management plan
- the draft sinkhole manual
- dispersal of plantation coupes.

1.3 Chief Forest Practices Officer

The Chief Forest Practices Officer (CFPO) is responsible for overseeing the day to day administration of the forest practices system and is appointed under s.4J of the *Forest Practices Act* as a person who must have -

- (a) extensive expertise in forestry; and
- (b) extensive experience in forest operations; and
- (c) knowledge of the sustainable management of forests; and
- (d) management skills.

Graham Wilkinson has been the Chief Forest Practices Officer since March 1996.

The Chief Forest Practices Officer attended and produced papers for consideration at all meetings of the Board and Advisory Council.

Qualifications, other relevant positions held and declaration of interest

- M.Sc. (Univ. Tas), B. Sc. (Forestry) (Hons) (ANU)
- Member Institute of Foresters of Australia
- State Chairman and Director, National Board of the Institute of Foresters of Australia
- National Chair, Registered Professional Foresters Scheme
- Fellow of the Australian Institute of Company Directors
- Member, CAR Advisory Committee for the Private Land Reserve Program under the Regional Forest Agreement
- Member, Local Government-Forestry Consultative Committee
- Member, RFA Implementation Group

The Chief Forest Practices Officer undertook a tour of Virginia and South Carolina, USA, in June 2002 to study the regulation of forest practices under purely self-regulatory systems. The CFPO found that these State's self-regulatory systems deliver good outcomes in the forest because they are underpinned by good quality training programs and independent monitoring by the State forestry agencies.

1.4 Forest Practices Act

There were a number of significant changes to the *Forest Practices Act* and Regulations during the year. The changes relate to:

- The regulation of tree clearing
- The regulation of the harvesting of tree ferns (*Antarctica dicksonia*)
- The regulation of firewood harvesting
- Provision for conservation covenants where compensation is paid to protect values excluded from harvesting as result of the refusal of a private timber reserve.

The rationale behind the changes is provided in the Second Reading Speeches, copied in Appendix 5.



The Forest Practices Act was amended in 2002 to provide for the regulation of tree fern harvesting.

2. Private timber reserves

- Private Timber Reserves (PTRs) were created by Parliament in 1985 to enable landowners to have their land dedicated for long term forest management. The legislation provides that forestry activities on the land are subject to a single, consistent, State-wide system of planning and regulation through the *Forest Practices Act*, rather than to variable systems that may be applied under different planning schemes through the *Land Use Planning and Approvals Act*.
- Details on PTR applications during 2001/2002 are summarised below. The net area of forested private property now dedicated as Private Timber Reserves represents approximately 37% of the total area of private forests within the State.

	2001-2002	Progressive total to 30/6/2002*
Applications approved by Forest Practices Board	98	1286
PTRs, all or part, revoked	11	42
Total area gazetted (hectares)	33,576	377,748

* progressive total contains adjustment to figures reported previously

3. Forest practices plans

All forest practices on private property and Crown land must be carried out in accordance with certified forest practices plans (FPPs), with minor exceptions for operations prescribed under the *Forest Practices Regulations 2002*. Plans are required for-

- Timber harvesting, including firewood
- Tree clearing
- Reforestation, including tree establishment on cleared land
- Roothing and quarrying in connection with the above.

Forest practices plans must contain specifications in connection with harvesting, roading and reforestation activities. Such specifications must be in accordance with the Forest Practices Code. The Code requires special provisions where necessary to protect natural and cultural values, including flora, fauna, geomorphology, soils and water, cultural heritage and visual amenity.

The applicant for a FPP must lodge a Certificate of Compliance prepared by a Forest Practices Officer upon the completion of a FPP. The intent of this requirement is to ensure that a Forest Practices Officer carries out regular inspections during and at the completion of operations to ensure that the plan is fully complied with and that any problems are recognised and corrected in a timely manner.

3.1 Details for forest practices plans certified in 2001/2002

(a) Number of forest practices plans certified in 2001/2002 by type and certifying Forest Practices Officer for private forests (PP) and State forest (SF)

Certifying forest practices officer	Quarry Plans		Roading Plans		Harvesting Plans (including reforestation where appropriate)				Reforestation Plans on cleared land		Total	%
	PP	SF	PP	SF	Native forest		Plantations		PP	SF		
					PP	SF	PP	SF				
Private Forests Tasmania	0	0	0	0	3	0	3	0	15	1	22	2.5
Forestry Tasmania	0	21	0	48	1	265	3	17	2	5	362	41.4
Forest companies	1	0	12	2	155	20	83	35	13	0	321	36.7
consultants	0	0	2	0	113	1	43	4	6	1	170	19.4
total	1	21	14	50	272	286	132	56	36	7	875	100
%	0.1	2.4	1.6	5.7	31.1	32.7	15.1	6.4	4.1	0.8	100	

(b) Native forests - area (hectares) of operations covered by Forest Practices Plans certified in 2001/2002 by harvesting method, future land use and tenure

	Partial logging ¹	Clearfelling followed by:			Non-forest land use ²	Total
		Regeneration By seeding	Plantation			
			Eucalypt	Pine		
State forest	7,860	2,750	4,530	460	330	15,930
Private Land	11,130	1,000	2,520	150	1,290	16,090
Total	18,990	3,750	7,050	610	1,620	32,020

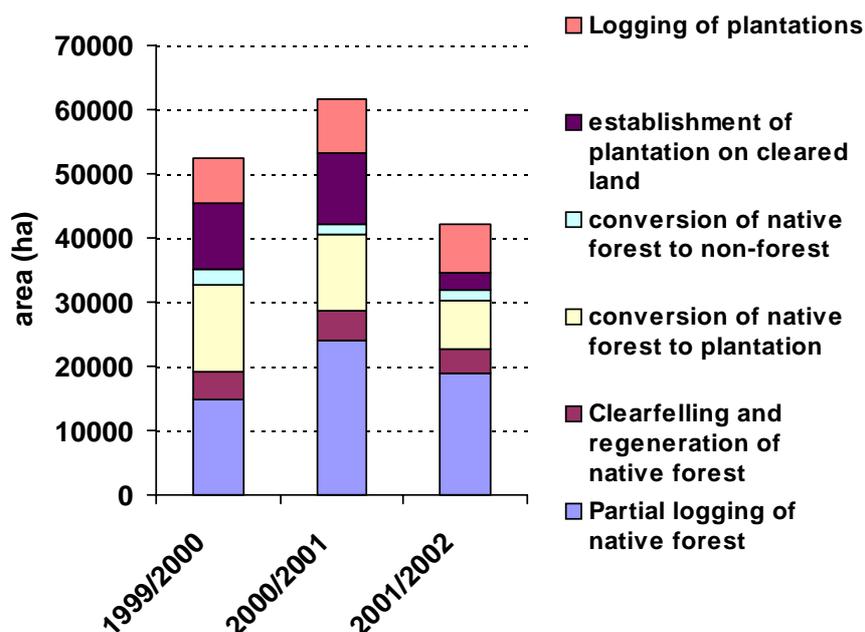
¹ thinning, retention of advanced growth, seedtrees, or shelterwood; or group or single tree selection

² clearing, primarily for agriculture and infrastructure, including roads

(c) Plantations - area (hectares) of operations covered by Forest Practices Plans certified in 2001/2002 by harvesting method, future land use and tenure

	Existing plantations			New plantations on cleared land	Total
	Thinning	Clearfelling followed by Plantation	Non-forest use		
State forest	1,280	2,770	130	260	4,440
Private Land	620	2,580	230	2,330	5,760
Total	1,900	5,350	360	2,590	10,200

Figure 3.1 Area of forest by various treatments from 1999/2000 to 2001/2002



Comments

There was a decline in the overall number of plans that was certified from a high of 1062 plans (involving over 60,000 ha) in 2000/01 to 875 plans (involving about 40,000 ha) in 2001/02. There were major reductions in the amount of native forest logged and in the amount of cleared land established to plantations.

4. Three Year Plans

The *Forest Practices Act 1985* provides for lodgement with the Board of three year plans for private property operations showing the location, volumes to be harvested and the carting routes for each operation. Such plans are required to be produced by companies harvesting or causing to be harvested more than 100,000 tonnes in the preceding year. Summaries of the plans are sent to relevant local government authorities as a basis for consultation and negotiation on the location of planned harvesting.

The Board convenes a working group of representatives of local government and industry, which annually reviews the protocols for three year plans, including the manner in which plans are prepared and briefings provided to local government.

Plans were prepared and submitted this year in accordance with the protocols.



Forest Planners and local government staff meet to discuss Three Year Plans.

5. Forest Practices Code

The first Forest Practices Code was released in 1987. The current edition has been in force since January 2000. No changes were made to the Code in 2001/2002.

6. Forest Practices Tribunal

The Forest Practices Tribunal is an independent body established under s.34 of the *Forest Practices Act*. The Tribunal's role is to conduct hearings and make determinations with respect to appeals that are lodged under the *Forest Practices Act* by aggrieved parties. Appeals may be lodged against decisions of the Forest Practices Board with respect to the following matters-

1. An applicant for a private timber reserve may appeal against the refusal of the Private Timber Reserve;
2. A prescribed person may appeal against the granting of a Private Timber Reserve;
3. An applicant for a Forest Practices Plan may appeal against the refusal, amendment or variation of the plan;
4. A person [who is] served a notice under s.41 of the Act may appeal against the notice;
5. A person who has lodged a three year plan may appeal if the Board varies or refuses the three year plan.

Members of the Tribunal are appointed by the Governor in accordance with s.34(1) of the *Forest Practices Act*. Current members 2001/2002 are as follows-

- a) barristers or legal practitioners who have practiced for at least five years - Keyran Pitt, Peter Roach.
- b) persons with a sound and practical knowledge of forestry, road construction in forests, and harvesting of timber – Marcus Higgs, Bert Witte, Duncan Grant.
- c) persons with tertiary qualifications and substantial practical experience in the sciences appropriate to land and forest management - Robert Ellis, John Pretty, Rod Pearse.
- d) persons with a sound knowledge of, and at least five years practical experience in, agriculture and forestry - Ian Dickenson, Peter Downie, Ian Chalk, Robert Downie.
- e) persons with a sound knowledge of, and at least five years practical experience in, conservation science - Peter Davies, Gintaras Kantvilas, Louise Gilfedder, Ray Brereton.

The Chief Chairman of the Tribunal in 2001/2002 was Mr Keyran Pitt QC.

One appeal was completed during the year.

Appeal against the refusal of forest practices plan HUD 0047

The Forest Practices Board refused to approve a forest practices plan for the harvesting of six hectares of plantation at Karoola on the basis that the harvesting of the trees would give rise to an unacceptable risk of landslide. The Forest Practices Tribunal dismissed the appeal and upheld the decision of the Board to refuse the forest practices plan. The full decision of the Tribunal is available at the website www.fpt.tas.gov.au.

7. Monitoring of compliance

7.1 General

The forest industry has a responsibility to adequately supervise and monitor its forestry operations to ensure compliance. The industry employs Forest Practices Officers to supervise and monitor forestry operations to ensure that they comply with the *Forest Practices Act*. Many forest managers undertake formal in-house monitoring, often as part of environmental management systems consistent with standards such as ISO14001.

Formal reporting on compliance is required upon the completion of all Forest Practices Plans under s.25A of the *Forest Practices Act* (see 7.2).

Independent monitoring is carried out by:

- an independent audit of about 15% of all forest practices plans by the Board;
- audits of Private Timber Reserves by the Board;
- the Chief Forest Practices Officer and other staff of the Board in the course of routine inspections, assessments of the standard of Forest Practices Officers, and investigations arising from complaints and alleged breaches of the Code;
- monitoring of natural and cultural values by the Board's specialist staff.

7.2 Certification of compliance

Changes to the *Forest Practices Act* from 1st July 1999 introduced a requirement for a certificate of compliance to be lodged with the Board within 30 days of the completion of operations prescribed within a Forest Practices Plan. These certificates must be completed by a Forest Practices Officer and lodged by the person who applied for the Plan.

The Board requires the reports to provide certification within one of the following categories-

1. Forest Practices Plan fully complied with – this means that all provisions of the plan were fully complied with.
2. Forest Practices Plan not fully complied with:
 - 2.1. No further action required – this generally involves a change in the operation such as a reduction in the actual harvest area. Such changes are noted and amendments are made to the Forest Practices Plan database.
 - 2.2. Matter resolved through corrective action – this generally means that the Forest Practices Officer undertaking the final compliance check has detected a non-compliance and has issued a notice under the *Forest Practices Act* to require corrective action to ensure compliance with the plan.
 - 2.3. Further action required – this generally involves a non-compliance issue that requires further investigation and action by the Board.



The Chief Forest Practices Officer checks for regeneration during an inspection of forestry operations in the north-west.

The following table summarises the information received by the Board with respect to compliance certificate lodged by the applicants for Forest Practices Plans.

	Certificates due (12/8/02)	Certificates received	Compliance (for received certificates)			
			Fully Complied	Not fully complied		
				No further action required	Corrective action taken	Further investigation required
State Forest	262	228 (87%)	208 (91%)	15 (7%)	0 (0%)	5 (2%)
Company PP	92	88 (96%)	73 (83%)	12 (14%)	0 (0%)	3 (3%)
Non-industrial PP	401	321 (80%)	221 (69%)	66 (21%)	19 (6%)	15 (5%)
Total	755	637 (84%)	502 (79%)	93 (15%)	19 (3%)	23 (4%)

The Board reports that a reasonable level of compliance is being reported through certificates lodged pursuant to s.25A of the *Forest Practices Act* by applicants upon the expiry of Forest Practices Plans. The Board notes that there has been a substantial improvement in the rate of lodgement of certificates but that the lodgement of certificates, particularly by the non-industrial private sector is still not acceptable. The Board is taking further action to ensure that all sectors fully comply with the requirement of the Act.

7.3 Independent audit of forest practices plans

7.3.1 Methodology for 2001/2002 audit
In accordance with s.4 of the *Forest Practices Act*, the Board undertakes an independent audit of a sample of Forest Practices Plans on private property and State forest. The audit is a random sample that is stratified to ensure that the activities of all forestry organisations and Forest Practices Officers are sampled. The audit covers plans for forest harvesting, roading, quarrying and site preparation at various stages of completion. A total of 169 plans were selected for audit, representing about 16% of the plans certified on an annual basis. In addition to the assessment of operational performance, the audit checks

the standard of the plan, including all assessments and procedures required by the forest practices system.

Forest Practices Officers Peter Lockwood (Private Forests Tasmania) and Rod Smith (independent consultant) conducted this year's audit.

The audit provides an important basis for continuous improvement in forest practices since the results from individual operations are discussed in detail with the relevant organisation in order to effect future improvements.

The 2001/2002 audit covered the questions detailed in Appendix 2. Not all of the questions necessarily relate to

mandatory provisions of the Forest Practices Code. Assessment is based upon the scoring system detailed in Appendix 2, with scores of 1 and 2 considered to represent well implemented operations. The State-wide performance rating is determined as the proportion of the total sample of operations that achieves a score of 1 or 2. The Board has set a performance target for all elements to be at or above a rating of 85%.

It is important to note that the audit results are a measure of the quality standards set by the Board, and are not a measure of compliance *per se*. Results below the nominated standard indicate areas where the Board believes that improvements should be made in order to fully achieve best practice. Any matters that involve non-compliance with the Code are separately investigated and addressed (see section 8 of this report).

The full results of the audit are detailed in Appendix 3. Figure 1(a) provides summaries of the standards achieved across the State, calculated as the weighted mean of questions within each of the categories. Figure 1(b) provides summaries of the standards achieved on State forest, and on private property by the large companies and on private property by the smaller, independent operations.

7.3.2 Review of audit methodology

The Board initiated an independent review of its audit protocols during 2001/2002. Mr Clynt Wells, a forestry/environmental audit consultant with national and international experience, undertook the review. Mr Wells findings are summarised below.

The auditing and reporting procedures of the Forest Practices Board compliance audit have been reviewed.

The review has found that, in terms of credibility, transparency and reliability of the audit process, the Forest Practices Board has:

- *a comprehensive system for managing self regulation*
- *audit procedures that follow the normally accepted protocols for an environmental audit*
- *a sampling percent that exceeds the level commonly accepted for general audits*
- *a need for special or appropriately stratified audits to reliably assess special issues*
- *a sample selection process that is consistent with accepted standards*
- *audit procedures consistent with the normally expected standards of objectivity and accuracy*
- *auditors with a high inherent competence and extensive experience but who lack formal auditing qualifications and certification*
- *procedures which fully record and report audit data in an accountable manner*
- *processes that use audit data to focus management and improve the Code*

The Board recognises the increasing importance of the audit process and is undertaking further revision and improvement to ensure that the audit process meets the highest standards for independent verification, transparency and reliability.

Figure 1 Proportion of forest practices plans (FPPs) assessed to have achieved the nominated standard within various assessment categories in 2001/2002

(The Board’s target in 2001/2002 was for at least 85% of operations to achieve the nominated standard)

Figure 1 (a) State-wide results (mean values with standard deviation)

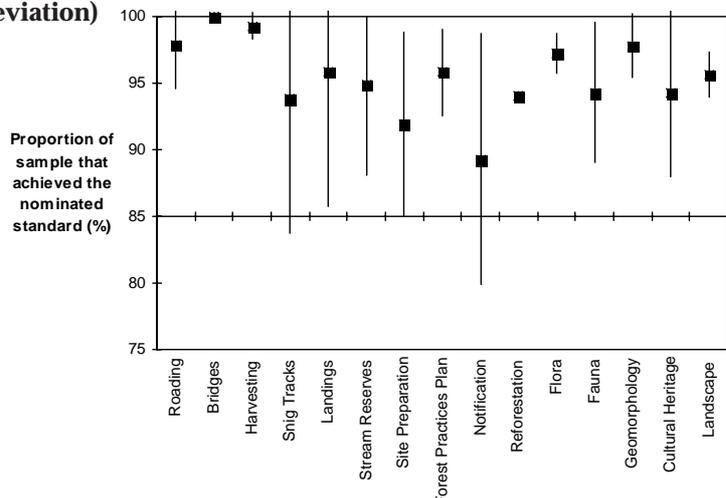
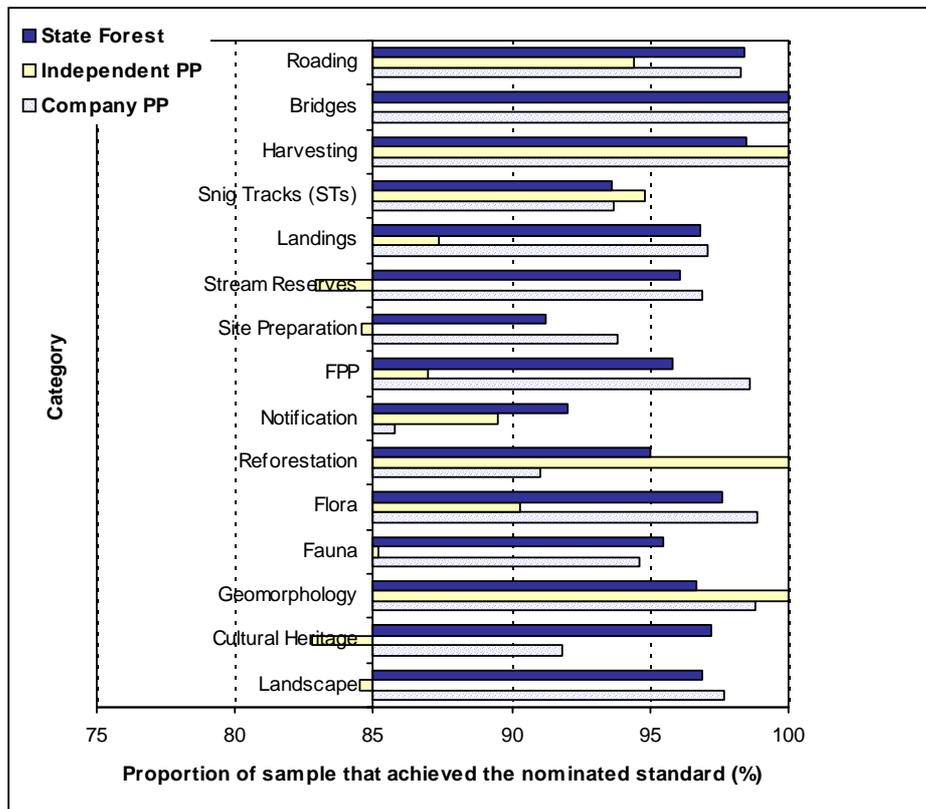


Figure 1(b) Results for operations on State forest and private property (PP) by large companies and independent operations



7.4 Comments on the annual audit of forest practices plans

The Board’s nominated standard was exceeded within all categories on State forest and operations on private property carried out by large companies, and within 10 of 14 categories for private property operations carried out by independent operators (see Figure 1b). Of the 124 individual factors assessed, the number that fell below the standard was nine on State forest, eight on private land by large companies, and 26 for independent operations on private land. Major issues that require either review of the guidelines or an improvement in the implementation of the guidelines include:

- Rehabilitation of borrow pits
- Removal of temporary stream crossings
- Direction of snigging
- Puddling of soils on feeder snig tracks

- Management of butts and bark in coupes subject to low intensity burns
- Cultivation along the contour
- Avoidance of cultivation machinery within drainage depressions
- Drainage of fire breaks
- Notification of neighbours
- Establishment of native species within previously cleared streamside reserves
- Post-operational surveys for cultural heritage

The Board reports under Section 4E(1)(b) of the *Forest Practices Act* that the implementation and effectiveness of forest practices plans was generally above the nominated standard. The Board has identified several areas where further improvement by forest managers is required, particularly in relation to independent operations on private property.

7.5 Monitoring of the Permanent Forest Estate

Section 4C(fa) of the *Forest Practices Act* provides that the Board will monitor and report on harvesting and reforestation activity in relation to the maintenance of a permanent forest estate. The Permanent Forest Estate policy (PFE policy) is outlined in the Regional Forest Agreement. It prescribes that the area of native forest will be retained above minimum thresholds, expressed as a percentage of the native forest estate assessed in 1996 under the Regional Forest Agreement. These thresholds are:

- Statewide level: 80% of the 1996 native forest estate to be maintained.
- Bioregional level (based on bioregions under the “IBRA 4” mapping):

Current proportion of native forest in reserves	Proportion of native forest to be maintained
0-30%	>80%
30-60%	>60%
>60%	current reserve area

- Forest communities: At least 50% of the current area in each bioregion to be maintained.
- The policy is currently under review.

The Board has administrative mechanisms in place to monitor and report on compliance with the Permanent Forest Estate policy. These mechanisms require Forest Practices Officers preparing Forest Practices Plans to notify the Board’s

Senior Botanist of any communities likely to have significance for conservation. Guidelines on the classification of communities have been provided to Forest Practices Officers. Field inspections are undertaken as necessary to verify the classification of communities and to consult with land managers on management options. The Senior Botanist consults with scientists within the Department of Primary Industries, Water and Environment with respect to any communities that have a priority for conservation. Suitable areas are referred to the Private Forest Reserve Program.

Data on changes to the native forest estate by forest community within the Tasmanian bioregions are given in Appendix 4. Care is needed in interpreting the data, for the following reasons:

- The data relate to planned operations, not all of which have been completed in the reporting period.
- Areas of forest communities given in Forest Practices Plans are generally gross areas that do not exclude reserves such as streamside reserves. The figures relating to the conversion of native forest are therefore likely to be overestimates for some communities.
- The proportions of forest communities converted are based on the area of each forest as mapped on the RFA Forest Communities Map (1996).

The mapping of forest communities is subject to ongoing review (e.g. through mapping undertaken by DPIWE), and in some cases the estimated 1996 extent of communities has been shown to be incorrect. Where information from FPPs has indicated that clearing of a forest community has reduced its extent to close to a threshold, particular attention has been paid to reviewing the actual area of that community. Some figures

from previous years have been revised in the light of more accurate information.

- The data do not include figures for non-commercial clearing conducted prior to 1/1/02, before such clearing became subject to regulation under the *Forest Practices Act* (see section 1.4 of this Report). Such clearing is considered to be negligible in more commercial forest types, but could be locally significant in some drier forests and woodlands, with low timber quality, that have been cleared for agriculture.

Overall, the reduction in the native forest estate over the five year period from 1997/98 to 2001/2002 amounts to approximately 72,000 ha (2.3% of the estimated 1996 native forest estate) as a result of conversion (mainly for plantation or agriculture). Summary results for the maintenance of the native forest estate by bioregion are presented below.

The Board reports that under Section 4C(fa) of the *Forest Practices Act*, Tasmania's native forest estate has been maintained at a level equivalent to 97.7% of the native forest area that existed in 1996. The Board reports that the current native forest area is well in excess of the minimum thresholds within all bioregions. The Board notes that the level of conversion of some communities is approaching the thresholds. Action to maintain all communities in accordance with the Permanent Forest Estate policy is being undertaken by the Board.

Table 7.5.1: Native forest in Tasmania and Tasmanian bioregions, relative to the estimated extent in 1996.

Bioregion	Native forest estate at 30/06/02 (as % of 1996 area)
Furneaux	100.0
Woolnorth	93.7
Ben Lomond	95.8
Midlands	98.5
Freycinet	99.2
Central Highlands	98.5
West Southwest	99.6
D'Entrecasteaux	96.8
STATE	97.7

Table 7.5.2: Forest communities in which the area in a bioregion has been reduced by more than 7%, relative to their estimated extent in 1996.

Forest community	Bioregion	Community extent at 30/06/02 (as % of 1996 area)
Inland <i>E. amygdalina</i> forest	Woolnorth	92.9
Tall <i>E. delegatensis</i> forest	Woolnorth	85.3
Callidendrous/thamnic rainforest	Woolnorth	90.7
Dry <i>E. obliqua</i> forest	Woolnorth	92.7
Tall <i>E. obliqua</i> forest	Woolnorth	90.0
<i>E. regnans</i> forest	Woolnorth	75.6
Wet <i>E. viminalis</i> forest on basalt	Woolnorth	89.4
Inland <i>E. amygdalina</i> forest	Ben Lomond	80.8
<i>E. amygdalina</i> forest on sandstone	Ben Lomond	80.1
<i>Acacia melanoxylon</i> on rises	Ben Lomond	77.6
<i>E. viminalis</i> / <i>E. ovata</i> / <i>E. amygdalina</i> / <i>E. obliqua</i> damp sclerophyll forest	Ben Lomond	(52.8)*
Dry <i>E. obliqua</i> forest	Ben Lomond	86.0
Tall <i>E. obliqua</i> forest	Ben Lomond	92.5
Shrubby <i>E. ovata</i> forest	Ben Lomond	81.5
<i>E. regnans</i> forest	Ben Lomond	77.7
<i>E. rodwayi</i> forest	Ben Lomond	**
Wet <i>E. viminalis</i> forest on basalt	Ben Lomond	(52.1)*
<i>E. viminalis</i> / <i>E. ovata</i> / <i>E. amygdalina</i> / <i>E. obliqua</i> damp sclerophyll forest	Midlands	92.4
<i>E. pauciflora</i> on Jurassic dolerite	Midlands	90.0
<i>E. rodwayi</i> forest	Midlands	91.2
Wet <i>E. viminalis</i> forest on basalt	Midlands	92.4
Inland <i>E. amygdalina</i> forest	Freycinet	73.1
<i>E. regnans</i> forest	Freycinet	85.2
<i>E. viminalis</i> / <i>E. ovata</i> / <i>E. amygdalina</i> / <i>E. obliqua</i> damp sclerophyll forest	Freycinet	**
<i>E. viminalis</i> / <i>E. ovata</i> / <i>E. amygdalina</i> / <i>E. obliqua</i> damp sclerophyll forest	Central Highlands	86.6
Dry <i>E. obliqua</i> forest	Central Highlands	92.3
Shrubby <i>E. ovata</i> forest	Central Highlands	90.9
Grassy <i>E. globulus</i> forest	D'Entrecasteaux	92.6
<i>E. regnans</i> forest	D'Entrecasteaux	88.4

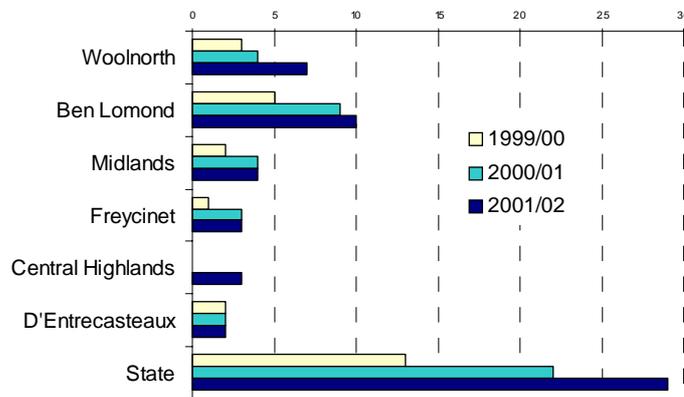
Notes:

* these figures are substantial under-estimates of retained forest due to inaccuracy of the 1996 mapping.

** Not possible to accurately calculate area of community converted because of inaccuracy of 1996 mapping

More recent surveys have shown that these four communities are more extensive in those bioregions than is indicated on the 1996 RFA Forest Communities Map. Incorporation of more accurate data from recent and ongoing surveys will provide better data for future reports.

Figure 7.5 Number of communities reduced to less than 93% of their 1996 area



8. Enforcement

8.1 Notices and Prosecutions

The emphasis of the forest practices system is to achieve high environmental standards through an emphasis on planning, training and education. Where problems arise, the Board expects that they will be dealt with through early detection and corrective action. Corrective action may mean remedial treatment in the forest. Most importantly, it also means reviewing and improving systems to ensure that similar errors do not arise in the future. From time to time, serious errors arise that generally reflect inadequate systems or insufficient care. In these cases, penalties are appropriate to reinforce the importance that all parties must strive for full compliance with the requirements of the Act.

Legal enforcement may be taken in several ways.

1. Forest Practices Officers may give verbal or written notification (under Section 41(1)) in order to inform persons that they must comply with the Act or a forest practices plan. Where this notice is not complied with, a Forest Practices Officer may issue a second notice (under Section 41(2)) to direct the person to cease operations and carry out any work required to ameliorate any damage incurred as a result of the breach. Failure to comply with the second notice may lead to prosecution. Most problems or instances of non-compliance are resolved by the notice system.
2. The Board may prosecute for failure to have operations covered by a forest practices plan (Section 17), for failing to comply with a forest practices plan (Section 21) or for failing to lodge a certificate of compliance (Section 25).
3. The Board may impose fines as an alternative to prosecution (Section 47B).

The following legal enforcement occurred in 2001/2002.

	2000/2001	2001/2002
Notices issued by Forest Practices Officers:	37	39
Fines imposed by the Board:	1	5
Prosecutions completed:	0	1

Fines imposed for offences under the *Forest Practices Act* during the year 2001/2001 were as follows-

- Rodney Blake (landowner) and Danny Woods (contractor) – the Board imposed total fines of \$1000 under s.47B of the *Forest Practices Act* for offences related to the harvesting of 70 tonnes of timber without a current Forest Practices Plan. The land was previously covered by a FPP but operations did not commence during the term of the FPP. When harvesting did commence, it was carried out within the streamside reserve of a class 3 stream, causing environmental harm. The alleged offences appear to have resulted from a lack of care and ignorance of the law, but the Board considered that a penalty was warranted to send a signal to landowners and contractors that such activity needs to strictly comply with the requirements of the Act.
- Forestry Tasmania (Bass District) – the Board imposed a fine of \$3,000 under s.47B of the Act for offences related to the harvesting of trees within a streamside reserve. The class 3 streamside reserve was incorrectly marked, resulting in the harvesting of trees to within 5m of the stream over a 50m section of the reserve. The offences did not result in substantial environmental harm. However, the Board was disappointed that Forestry Tasmania had been aware of a potential problem with the marking of the SSR and yet it had failed to check the marking prior to harvesting.
- Forest Enterprises – the Board imposed a fine of \$1,000 for offences related to the application of herbicide to an area excluded from treatment under the provisions of a forest practices plan. The error was the second incident involving the application of herbicides to areas excluded within the plan. There was no evidence of any environmental harm as a result of the spraying. The Board also acknowledged that the second spraying incident might have occurred partly because persons unknown removed the tapes marking the spray-exclusion area. Notwithstanding this, the Board was of the view that the systems used by FEA at that time were deficient.
- Maydena Contractors - the Board imposed a fine of \$1,750 for offences related to the harvesting of firewood on State forest outside the boundary of a Forest Practices Plan. The Board found that the contractors had not taken adequate care with respect to complying with the FPP. The Board noted that firewood operations have traditionally been regarded by some as being outside of the forest practices system. In setting a penalty, the Board has placed the firewood industry very firmly on notice that it must fully comply with the requirements of the *Forest Practices Act*.
- Kelvin William Watson - was convicted under s.21 of the *Forest Practices Act* for cutting firewood on private land at Waterloo in an area reserved from harvesting under a forest practices plan. The reserve was originally

included in the plan in order to protect a threatened species of stag beetle. The illegal cutting had been detected by a forest practices officer who had stopped the operation before any major harm was done to the beetle's habitat. Magistrate Shan Tennent in the Huonville Court of Petty Sessions fined Mr Watson \$1500 plus \$900 in costs. The Magistrate said that Mr Watson worked in the forest industry and should have read the plan and stayed outside of the area of forest set aside to protect the beetle.

8.2 Investigation of complaints

The Board investigates all complaints relating to alleged breaches or poor practice. The Board believes that under the principle of self-regulation, all parties

have a responsibility to respond to complaints. Wherever possible, the Board asks Forest Practices Officers to investigate alleged breaches and to deal with public complaints. Formal legal investigations by the Board, in consultation with the Director of Public Prosecutions, are undertaken into all serious breaches.

The Board received 84 complaints of alleged breaches. There were 30 investigations on State forest, one on Crown land, 17 on industrial private and 36 on non-industrial private land. The alleged breaches involved operating without a plan (19), boundary incursions (12), streamside reserves (26), special values (20) and other matters (24). Outcomes of investigations are detailed in table 8.2.

Table 8.2 Outcomes of completed investigations

(note: figures are cumulative for each year as investigations are completed)

Outcome	2000/2001	2001/02
No breach	48 (51%)	21 (36%)
Minor breach, no serious environmental harm	34 (36%)	19 (33%)
Notice issued to require corrective action*	10 (11%)	11 (19%)
Penalty imposed or formal warning given	1 (3%)	5 (9%)
Legal action taken	0	1 (2%)
Apparent breach but insufficient evidence or out of time to proceed with legal action		1 (2%)
Total	95 (100%)	58 (100%)
Investigations in progress	7	26

* excludes notices issued by forest practices officers during routine monitoring and supervision as reported under section 8.1

9. Administration

9.1 Forest Practices Officers

The Forest Practices Board appoints Forest Practices Officers under s.38 and s.39 of the *Forest Practices Act*. Forest Practices Officers have powers and responsibilities under the Act, and the Board may delegate further responsibilities in relation to functions such as the certification of forest practices plans and the laying of complaints under the *Forest Practices Act*. Forest Practices Officers are employed by forest companies, Forestry Tasmania, Private Forests Tasmania and as consultants to plan, supervise and monitor forest practices and ensure that operations comply with the *Forest Practices Act*.

The prerequisite qualifications for appointment as a Forest Practices Officer are:

Forest Practices Officer (Planning) - a degree in forestry or equivalent academic qualifications or demonstrated personal expertise together with at least five years practical forestry experience in planning and supervision of forest operations;

Forest Practices Officers (Inspecting) - a tertiary qualification or equivalent technical expertise and at least five years experience in supervising forest operations.

In addition, a person who wishes to be appointed as a Forest Practices Officer must successfully complete a training course conducted by the Forest Practices Board which consists of a number of teaching sessions, field trips, practical exercises in various parts of the State and a formal examination. The training course

covers legislation, and implementation of the Forest Practices Code with an emphasis on harvesting, roading and reforestation. Specialist subjects include botany, zoology, soils and water, geomorphology, cultural heritage and visual landscape. Periodic refresher courses are also obligatory. Forest Practices Officers (Inspecting) may be appointed as Forest Practices Officers (Planning) following further training and accreditation for appropriate experience in forest planning.

9.1.1 Forest Practices Officers

	As at 30/6/01	As at 30/6/02
FPO(Planning)		
- industry	50	38
- independent consultants	23	23
- Forestry Tasmania	43	43
- Forest Practices Board	4	3
- Private Forests Tasmania	10	10
<i>Total FPO (Planning)</i>	<i>130</i>	<i>117</i>
FPO(Inspecting)		
- industry	23	24
- independent consultants	10	7
- Forestry Tasmania	30	35
- Forest Practices Board		1
- Private Forests Tasmania	-	-
<i>Total FPO (Inspecting)</i>	<i>63</i>	<i>67</i>
TOTAL	193	184



Forest Practices Officers attending a training day in the Southern forests

The Board has introduced a requirement that the retention of accreditation as a forest practices officer is subject to officers satisfying the Board that they are actively engaged in the preparation of plans or the supervision of forestry operations. Many officers in recent years have been promoted to more senior supervisory positions and are no longer directly involved in preparing plans or supervising operations. As a result many of these officers relinquished their appointments during the year. Most of those in supervisory positions have elected to remain part of the forest practices system under a new category of Forest Practices Manager. Forest Practices Managers have no statutory powers under the Act but they receive all instructions and advice from the Board so that they can remain up to date and can provide guidance to the forest practices officers under their supervision.

9.2 Staff

Research and Advice

Bruce Chetwynd	B.A.(Env.Des.), Grad.Dip Rec.Plan, Grad.Dip.Land.Plan.	Forest Landscape Planner
Nathan Duhig	B.Sc.(Hons)	Scientific Officer
Fred Duncan	B.Sc.	Senior Botanist
Denise Gaughwin	B.A. (Hons), M.A.	Senior Archaeologist
Kevin Kiernan	Ph.D.	Senior Geomorphologist
Peter McIntosh	B.Sc.(Hons), Ph.D.	Senior Scientist (Forest soils and water)
Chris Mitchell	B.Sc. (For.)	Forest Practices Adviser
Sarah Munks	B.Sc.(Hons), Ph.D.	Senior Zoologist
Mark Wapstra	B.Sc. (Hons)	Scientific Officer
Darrell West		Aboriginal Heritage Officer

Administration/Regulation

Kylie Dillon		Administrative Assistant
Bill Manning	Tech. For. Cert.	Inspector, Forest Practices
Paul Wilkinson	B.Nat.Res.	Environmental Officer
Sheryl Wolfe		Office Manager

Temporary staff during the year

Brian French		Botany Technical Officer
Karen Richards	B.Sc. (Hons)	Project Zoologist
Suzette Wood	B.Sc.	Research assistant – Geomorphology and Zoology
Fiona Wells	B.A. (Hons)	Research officer (streams)

9.1.2 Disciplinary action

Forest Practices Officers are a most important part of the forest practices system and the Board expects very high standards to be maintained. The Board has a disciplinary policy for instances of unsatisfactory performance by Forest Practices Officers. In 2001/2002 the Board took action with respect to two Forest Practices Officers who were found to have incorrectly followed the planning instructions for forest practices plans, resulting in flawed plans. One officer was suspended for two months and the other officer for one month.

10. Training and Education

The Board completed a Forest Practices Officer training course for 21 people and commenced a new course for 24 people.

Specialist courses were conducted as follows-

- Module for Forestry Diploma students, and evaluation of herbaria.
- A field day for forest managers on the management of a threatened species of *Pimelea*.
- A seminar and field training session on soil and water issues was given to forestry supervisors at Orford.
- A field day to devise ways of improving cultivation guidelines for plantations.
- A field day for an invited audience of foresters and scientists was held at Roses Tier to disseminate the results of research on the effects on pre-Code forest operations on the condition of Class 4 streams in granite terrain.
- A total of 53 Fauna Officers were assessed and accredited by the FPB and Threatened Species Unit, DPIWE to undertake threatened fauna evaluations and use the associated planning tools.
- A field day on the green and gold frog was held in late January.
- Numerous presentations were given on the forest practices system by staff of the Board (refer to Appendix 1).

11. Self Regulation

A major objective of the forest practices system of Tasmania is to achieve a high degree of self regulation by the forest industry (Schedule 7 *Forest Practices Act* 1985).

Self regulation is implemented through the following processes within the forest practices system:

- *Preparation of forest practices plans.* Section 18 of the *Forest Practices Act* provides that any person may prepare a forest practices plan. However, in practice, most plans are prepared by Forest Practices Officers who have the skills and knowledge necessary to ensure that plans achieve the high standard necessary for approval. The larger companies and Forestry Tasmania generally employ sufficient staff to meet their own requirements for the preparation of plans. Consultants generally service smaller companies and private landowners.
- *Certification of forest practices plans.* Forest practices plans are certified by selected Forest Practices Officers who hold delegated powers from the Board. These Forest Practices Officers are appointed by the Board from suitably qualified staff employed by forestry consultants, forest companies, Forestry Tasmania and Private Forests Tasmania.
- *Supervision and inspection of forest practices.* Forest practices are supervised by Forest Practices Officers and other staff employed by the forest industry. Forest Practices Officers have the power to issue notices under Section 41 of the *Forest Practices Act* in order to ensure that operations comply with the Act or with the conditions of an approved forest practices plan.
- *Internal environmental audit.* Some of the major companies and Forestry Tasmania have formal environmental audit systems that are consistent with standards such as ISO 14001.
- *Reporting on compliance under s.25A of the Forest Practices Act* - Certificates of compliance must be lodged with the Board within 30 days of the expiry of a Forest Practices Plan. Such certificates must be completed by a Forest Practices Officer.

The Board reports that a satisfactory level of self regulation has been maintained on State forest and on most of the private land that is subject to operations undertaken by the major companies.

12. Funding

The objective of the Tasmanian forest practices system is to deliver sustainable forest management in a way that is as far as possible self funding (Schedule 7 *Forest Practices Act 1985*). The Act also provides under Section 44 that certain functions of the Board will be paid out of money allocated by Parliament.

Full financial details for the year 2001/2002 are presented in part 2 of this report (Financial Statements).

12.1 Self-funding of activities conducted by industry

The industry has self funded the implementation of the *Forest Practices Act* by providing the following services:

- preparation and certification of forest practices plans;
- supervision of forest practices;
- training and education of contractors, operators and Forest Practices Officers;
- The Board estimates the value of these services to be \$7 million p.a. in 2001/2002.

12.2 Self-funding of activities conducted by the Forest Practices Board

The self-funding activities of the Board are primarily related to the direct cost of the services provided by the Board's Research and Advisory Programs (see section 13 of this report). The funding for these activities of the Board is based upon the following arrangements:

- 50% of the funding is contributed for operations on publicly owned forests by a voluntary contribution from Forestry Tasmania;

- 50% of the funding is contributed for operations on privately owned forest owners by a voluntary contribution from wood processors. The Forest Industries Association of Tasmania (FIAT) collects the levy on behalf of its members.
- In addition to the direct funding of the Research and Advisory Program, the Board receives income from research grants and consultancy work.

Total revenue received under the self-funding activities of the Board in 2001/2002 amounted to \$1.345 million.

The Board is pleased to report, in accordance with Section 4E(1)(a) of the *Forest Practices Act*, that the forest practices system in 2001/2002 satisfied the principle of self-funding.

12.3 Funding of the Forest Practices Board from Parliament

Section 44 of the *Forest Practices Act* provides that the costs and expenses incurred for the following activities are to be paid out of monies provided by Parliament:

- a) annual assessment of the forest practices system and forest practices plans;
- b) preparation of the Annual Report to Parliament under s.4F;
- c) detection and investigation of breaches of the Act;
- d) laying of complaints and prosecuting offences;
- e) payment of compensation for the refusal of Private Timber Reserves;
- f) remuneration of the Chief Forest Practices Officer;
- g) administrative support for the Chief Forest Practices Officer;
- h) exercise of the Board's powers and functions.

Total revenue received for the independent regulatory functions of the Board in 2001/2002 amounted to \$453,000.

The Board reports that the independent regulatory functions of the Board were funded by the income received under s.44 of the *Forest Practices Act* in 2001/2002.

13. Report on the activities of the Research and Advisory Program

The forest practices system draws on a large pool of scientific expertise available within the Forest Practices Board, Forestry Tasmania, forest companies, CSIRO, the Nature Conservation Branch of the Department of Primary Industries, Water and Environment, other Government departments and Universities.

Senior scientists in archaeology, botany, geomorphology, soil science, visual landscape and zoology are attached to the Research and Advisory Program of the Forest Practices Board.

Services provided by the Board include the following:

- Contributing to comprehensive and scientifically based inventories and databases and the updating of these databases through additional research and surveys. Such databases show the occurrence or potential occurrence of values that may require reservation or special management.
- Developing and maintaining up to date manuals to document the knowledge that under-pins the Forest Practices Code and to provide additional guidelines for the practical management of specific values within wood production forests.
- Undertaking research to test the effectiveness of the provisions of the Forest Practices Code and proposing amendments if necessary.

- Training, education and liaison with Forest Practices Officers and land managers.
- Providing advice to land managers on general management issues and on the practical conservation and management of significant features within wood production forests.
- Monitoring the implementation of the Forest Practices Code and management prescriptions involving specific values.
- Conducting or supervising surveys that require special expertise.

Highlights of activities carried out by the Board's Research and Advisory Program are provided below. Further details on the Research and Advisory Program are available from the Board upon request. Publications by staff of the Board are included in Appendix 1.



Forest Officers discuss the management of cultural heritage in the Central Highlands

13.1 Cultural Heritage

The Senior Archaeologist gave advice on the management of cultural heritage within areas covered by forest practices plans, including a total of 53 field

inspections. Of these, 21 related to issues on private property and 32 related to land administered by Forestry Tasmania. A further 395 coupe surveys were completed by the Senior Aboriginal Heritage Officer (315) and Archaeologically Trained Staff (80). Forty new Aboriginal sites were located on 29 coupes. Seventy-five additional historic sites were reported in this period.

Site records were updated for both Aboriginal and historic databases. These additional records have been placed on the Conserve database operated by Forestry Tasmania. Ongoing attention has been given to improving the accuracy of records in the historic site database. All new Aboriginal sites records have been sent to the Cultural Heritage Branch, Department of Primary Industry, Water and Environment.

Assistance was provided to Gunns Burnie to undertake a Management Plan for the historic Van Diemens Land Co. sites. The Senior Archaeologist prepared briefs for the Six Foot Track work, survey of convict timber sites, and the Parawee Aboriginal chert quarry.

Liaison and consultation occurred with appropriate bodies, including the Cultural Heritage Branch, DPWIE, Tasmanian Aboriginal Land Council and local Aboriginal groups, Tasmanian Heritage Council, Mineral Resources Tasmania, Queen Victoria Museum and Art Gallery. The Senior Archaeologist served as a Councillor on the Tasmanian Heritage Council.

The Senior Archaeologist organised and co-edited the proceedings of the Forest History Conference and field trip. She provided specialist input for State of Environment Report, Regional Forest Agreement report, Reserve Code of Practice and attended Cultural Landscapes workshop.

The Senior Aboriginal Heritage Officer attended the Australian Archaeological Association Annual Conference.

13.2 Botany

Over 290 formal notifications for advice on management of flora values were processed (164 or 57% on State forest; 83 or 27% for larger companies; 43 or 16% for private consultants). About 60 field surveys were undertaken (20 or 33% on State forest; 18 or 30% for larger companies; 22 or 37% for private consultants). Advice was provided on numerous other areas by phone or email.

Most of the surveys were initiated by FPOs or FT specialist staff after they had identified potential RFA values or occurrences of threatened species in proposed coupes. Other issues requiring surveys or advice included fire management, *Phytophthora cinnamomi* management, weed control and disturbance to Sphagnum peatlands. Some surveys were initiated to monitor compliance.

About 8% of the sites were formally referred to the Private Forest Reserve Program for further evaluation. This is a reduction in the number of formal referrals to the PFRP. The main reasons for this include: a higher level of initial discussion with PFRP staff prior to advice being provided; greater familiarity of FPOs with the process; areas containing priority species and communities being excluded from operations; landowners liaising directly with the PFRP; and a reduction in the number of operations (on private land) in lower quality forests. Reports were prepared for all sites containing identified CAR values (forest communities or species). Liaison with DPIWE was required for sites containing threatened species.

The employment of specialist staff by some FT Districts and in FT's Conservation Planning Section was a pleasing trend, providing additional resources for comprehensive surveys to be undertaken.

Advice on forest vegetation and related issues was also given to community groups, staff of other government

departments and councils, landowners, students, researchers and other members of the public.

Sixty four occurrences or potential occurrences of 27 threatened plant species were identified (some areas contained more than one threatened species). Most areas were proposed for forestry operations, but some were sites sampled outside coupes and roadlines. Many of the occurrences were located in the field by FPOs or other District/company staff, others were located in the course of FPB botanical surveys. In some cases information from FT or DPIWE databases was used to assess whether areas were likely to contain threatened species.

There was liaison with specialists of the Threatened Species Unit for all recorded threatened species occurrences, as required by the FPC and Threatened Species Protection Act. In most cases, protection of the species was achieved by management prescriptions. Some programs have been developed to allow sampling or monitoring of sites containing some threatened forest species.

The Forest Botany Manuals are in their final stages of revision, to reflect changes to legislation, policies and information, and to take account of comments made by FPOs. Draft versions have been provided to forest planners as requested throughout the year to allow them to both use the latest information and field-test the manuals. The manuals are supported by a website that has been developed to allow FPOs (and others) to identify species (complete) and forest communities (to be added).

Much of the workload of the FPB botanical staff is related to requirements of the RFA (on both public and private land). Apart from survey/advice/monitoring issues, major activities were:

- member of the Scientific Advisory Group of the Private Forest Reserves Program;
- advising on Permanent Forest Estate monitoring, including reviewing the efficacy of current policy;
- commenting on reserve options on private and public land;
- developing recommendations to clear up conservation and production problems in some RFA communities (e.g. inland *E. amygdalina* forest);
- contributing to reviews of the status of communities and species listed in the RFA;
- preparation of a report on the distribution and conservation of *E. viminalis* wet forest – an RFA community with a very high priority for protection.
- The Senior Botanist attended a meeting of RWG4 in Manjimup, WA. Focus topics included research, monitoring and management related to biodiversity in native forests. The opportunity to liaise with other organisations was valuable, as was the opportunity to inspect the flora and forest practices in dry and wet forests in the Southwest of WA. A presentation on the forests and forest practices in Tasmania was subsequently made to CALM Wildlife Management. subsequently made to CALM Wildlife Management.

The following research projects were undertaken-

Ecology and distribution of rare Tasmanian species of Pimelea (Researcher – Karen Adamczewski – Honours student from Univ. of Tasmania). FPB botanical staff co-supervised a project examining the distributions of four rare species of *Pimelea*, and in particular the response of *Pimelea filiformis* to different forms of forest use. This species is associated with dolerite-based forests in the Reedy Marsh area, and seems to recover following logging and regeneration to native forest. A successful and well-attended field day on threatened *Pimelea* species was conducted in April

2002 for forest industry staff, to discuss management of these species in the forestry landscape. Aspects of the project are currently being synthesised in a manuscript for publication by the project officer.

Distribution of the forest-wire-grass *Ehrharta juncea* (Researcher – Tim Ashlin (Forestry Tasmania) with extension surveys by Mark Wapstra and Brian French (FPB)). This project assesses the extent and effect of forest practices on a rare species of grass (*Ehrharta juncea*). The grass occurs in production and reserved forest near Smithton, and appears to regenerate on disturbed sites. A report is being finalised.

Recovery of vegetation associated with headwater streams in the northeast highlands (Researchers – Mark Wapstra, Peter McIntosh, Brian French with data analysis support by Dr Peter Davies). Surveys were conducted of riparian vegetation associated with the riparian zone of 10 class 4 headwater streams (5 control, 5 regrowth) and adjacent forest in the Ben Nevis area. Surveys and analysis are complete and a manuscript is expected to be submitted by July 2002.

The Botany Program undertook four vegetation assessment consultancies.

13.3 Geomorphology

Geomorphological advice was sought in relation to 77 operations, with about one third that number requiring field surveys. This was very similar to the pattern in the previous financial year. The requests originated from forest practices officers within Forestry Tasmania (61%), Private Forests Tasmania (1%), major companies (29%) and private FPOs (9%). The breakdown from Forestry Tasmania District offices was Derwent 25%, Murchison 17%, Bass 14%, Mersey 4% and Huon 1%.

Issues arising continued to be predominantly in karst environments (58%) followed by colluvial/fluvial, (19%)

glacial (4.4%) and aeolian (5.4%). Various other concerns (13.5%) included various notifiable landforms, granitic terrain, rocky ground and fossil sites. Inquiries were spread fairly evenly between geoheritage and geohazard concerns, many involving elements of both. Additional prescriptions were prepared for about 20% of these operations, mostly involving relatively minor changes. In one case where a larger area was involved negotiations have commenced between the property owner and DPIWE regarding possible purchase of the land by the state for conservation purposes.

A new Forest Sinkhole Manual was published following endorsement by the Forest Practices Advisory Council and has been circulated to FPOs and other interested parties. This manual replaces and now constitutes the Technical Note entitled Some Operational Considerations in Sinkhole Management to which reference is made in the Forest Practices Code. It provides background information on the nature and role of sinkholes, the problems that may be related to them, and guidance regarding their management.

The draft of a small volume of background information on karst area management was further developed over the past year. Drawing from worldwide studies it addresses both geohazard and geoheritage issues in karst, and considers requirements for integrated karst area management.

FPB Geomorphology research focuses on Tasmania's forest geomorphology; its significance; the contexts (spatial and temporal and process) within which forest geoheritage and geohazards have evolved and are evolving; and their implications for forest practices.

Knowledge of Tasmania's geomorphology and its implications for forest management remains at a much lower level than that which exists for biological values. A number of factors contribute to this, primarily the much smaller number of

geomorphologists who have worked in Tasmania over the years compared to the number of biologists, the lack of a strong geomorphological stream at the local university, and the very limited financial resources for research.

There remains an absence of legislative requirements for geoconservation similar to those that exist for bioconservation and which effectively require injection of resources into biological studies and inventory. This means the disparity in knowledge between bioconservation and geoconservation continues to widen. Similarly, funding support for research and for purchase or covenanting of land for bioconservation that flowed from the RFA is not available for geoconservation, as highlighted by the state's difficulties funding compensation for applicants for Private Timber Reserve whose karst properties have been found by the Forest Practices Tribunal to be unsuitable on public interest grounds. Hence there is a major need for increased research activity that will identify and scientifically validate the conservation significance of important geoheritage sites and requirements for their sustainable management, and enhance identification of sites that may pose geohazards for forest operations. Inadequacies in information hamper production of high quality manuals, guidelines, training and FPPs.

Research projects pursued during the past year have involved the following broad areas and specific topics:

(a) Mass movement landforms in Tasmanian forests

The results from a small study into the nature, age and implications of some colluvial landforms and sediments and alluvial fills at some localities in the Eastern Tiers, and their implications for present day stability, are currently being written up.

Additional work on a previous project on slope stability and valley filling in the Dazzler Range has been completed and a

research paper published in the scientific literature.

(b) Karst studies

Further work on the long term karst process study (joint project with A. Richardson, University of Tasmania) has mainly involved continued biological monitoring and associated monitoring of environmental conditions.

As part of a project on karst soils (joint project with P. McIntosh, FPB) sampling of soils for ¹³⁷Cs has been undertaken at some additional sites and analytical results are being awaited. Initial field assessments suggest significant loss of soil into solution cavities even at sites distant from obvious watersinks.

Some updating of a hitherto unpublished series of karst area case studies has been undertaken. This project has entailed broad inventory and management overview of some karst areas with a view to improving the capacity of forest planners to predict the extent to which forest resources in similar types of karst may need to be discounted to take account of karst factors.

(d) Landforms of coastal origin

A paper on tectonic uplift history near the southern Tasmanian coast (joint project with S-E Lauritzen, Bergen University) with implications for the location of some landforms of coastal origin around Tasmania has been completed and published in the scientific literature.

(e) Glacial landforms

Further analytical results have been obtained from a study involving cosmogenic exposure age dating of glacial landforms (joint project with J. Chappell & K. Fifield, ANU), the results also proving of interest in dating past climate change and in suggesting that some profile development rates may be more rapid than previously believed.

(e) Basalt landscapes

Work on potential groundwater issues in basalt terrane (joint project with C. Wood, Bournemouth University) has involved integrating data previously obtained from several young volcanic field sites outside Tasmania, and from literature review. Some additional material was obtained during a private visit to Victoria by the Senior Geomorphologist.

Work on the TFRC palaeoenvironments book (joint project with G. Jordan, and A. Richardson, University of Tasmania, and Mick Brown, Forestry Tasmania) involved some further editing of drafts produced by the lead writer; financial issues are impeding publication of this volume.

Liasion occurred with the following organisations-

- Forest companies regarding cave management issues, principally in Florentine Valley
- DPIWE re fluvial geomorphology project; Hastings issues; Mole Creek karst NHT project; management plans.
- T a s m a n i a n Geoconservation Database Reference Group
- E d u c a t i o n Department regarding a review of its caving guidelines
- private landowners re karst
- British Columbia Forest Service regarding a review of karst area guidelines
- relevant NGOs of which the Senior Geomorphologist is a member (Australasian Cave & Karst Management Association; International Geographical Union

Commission on Sustainable Development and Management of Karst Terrains; IUCN World Commission on Protected Areas).

13.4 Soils and Water

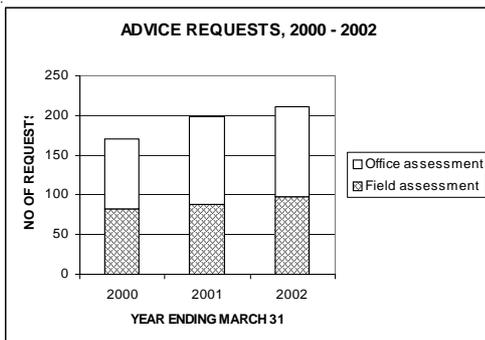
The Senior Scientist (Soils and Water) received a total of 211 notifications and enquiries in 2001/2002, compared to 198 in the previous year, a 6.5% increase. Enquires were chiefly from FPOs and foresters, in relation to slope stability, soil erodibility, landslide hazard and soil/hazard management. Of these enquiries 98 required field inspections of coupes and a full report (88 last year), while 113 were dealt with in the office and required fax or email responses (110 last year). Of the total enquiries, 125 originated from Forestry Tasmania (110 last year) and 86 from private companies or consultants (88 last year). Of the 88 field inspections, 2 were made to investigate complaints made by members of the public.



Forest Practices Officers study a soil profile during a training course

	Forestry Tasmania	Other commercial companies or consultants	Total
Enquires requiring field inspection	51 (24%)	47 (22%)	98 (46%)
Enquiries requiring advice but no field inspection	74 (35%)	39 (21%)	113 (56%)
Total enquiries	125 (59%)	86 (43%)	211

The total number of advice requests on soil and water issues has increased by 23% over a three year period.



During the year two major landslides occurred on previously cleared land with young plantations. One landslide was at Cygnet (top right) where a volume of c. 3000 m³ of Quaternary sediment (probably an aeolian deposit) at the head of a gully collapsed, contaminating a local stream. The second was in the highlands, near Bronte, where c. 24 000 m³ of weathered basalt entered the Nive River (bottom right). The sediment subsequently entered the Derwent River and on the 12 and 13 October 2001 water discolouration was visible downstream as far as the Tasman Bridge. Both landslides were inspected and were found to have been produced by water-saturation of subsoils after heavy rain. There was no indication that forestry activities had caused the land instability. Recommendations were given on longer term forest management to reduce the risk of future soil movement.



Research concentrated on producing a paper at the 3rd Stream management Conference in Brisbane; on improving fundamental soil information in forested land; supporting a University of Tasmania PhD student select sites for a research project on effects of forestry operations on streams; and describing and analysing new soil profiles.

A cooperative project was conducted with Forestry Tasmania and Gunns, to better characterise soils formed in granite, and write a guide to their management. Thirteen soil profiles were described and analysed and published as soil fact sheets on the FPB web site; a further 14 profiles have been described and analysed and fact sheets are in preparation.

Guidelines for forestry operations on basalt talus and on dolerite talus were finalised and published on the FPB web site.

A draft paper on soils and land use in granite terrain was written with Forestry Tasmania staff.

In collaboration with a PhD student appointed to investigate the effects of forestry on Class 4 streams, a number of streams in the south (Warra), the northwest (Natone), and in the northeast (Spurrs Rivulet) were investigated for their potential as study sites

The Senior Scientist attended the high plains tour of the Australian Soil Science Society. The tour included an examination of soil processes on uplands and an explanation of the Victorian system for soil erodibility assessment in forests

A two-day contract was undertaken to assist soil and land-use capability mapping on farmland in the Meander District

13.5 Visual Landscape

During the year 252 landscape notifications were received and reviewed. Planning review and input was required for 155 plans and detailed prescription reports based on 3D analysis were prepared for 102 of these. Approximately 20% only could be field reviewed by the Senior Landscape Planner and thus reliance was made on information and photos supplied, and 3D simulation analysis. Plantations in rural area were again the key category with visual concerns requiring specific measures to limit impact and prominence in the landscape.

Training presentations were given at the FPO course, with minor input to the FPO refresher courses. Subsequent to these courses, a review was made of the FPO examination. This has now been expanded and includes new landscape issues and associated prescriptions (ie. additional plantation aspects). A further major upgrading of the FPO course is now needed to include these aspects.

The methodology used in last year's study for a strategic assessment of rural landscapes values in the Meander Valley Municipality, has been reviewed and is



Forest Officers assess landscape character during a training course in visual landscape

being applied in a study in the Lilydale Visual Unit in the NE.

A number of visual management complaints have been received and investigated. These were usually related to specific operations with poor visual results and concerns for planned/upcoming operations. All had not previously been notified to the Senior Landscape Planner for review, as required under standing instructions in the evaluation sheets.

A strategic review of visual landscape values and concerns for planned pine plantation harvests was made to determine sequencing options and appropriate constraints.

Review of State-wide 'Public Sensitivity Level' mapping has been commenced.

Replacement software for predictive analysis and high quality photo-real simulations has been selected and is now to be acquired and adapted for use in Tasmanian forestry.

13.5 Zoology

The Senior Zoologist and Scientific Officers received 683 requests for advice in 2001/02 (see summary Tables 1 and 2 below). Of these, approximately 30% involved site visits (both State and Private property).

Additional advice was provided to FPOs and Fauna officers for threatened species issues separate from the agreed procedures process (e.g. identification of habitat, inspections of new wedge-tailed eagle nests, assessment of activity status of wedge-tailed eagle nests, advice on implementation of prescriptions etc.)

Table 1. Number of notifications for individual threatened species and RFA priority species for the period 1/7/01 to 30/6/02. (NB Most fauna evaluations for FPPS include more than one species)

THREATENED FAUNA	No. of notifications
Wedge-tailed eagle	508
Quoll species	502
Bandicoot	280
Giant freshwater lobster	163
Grey goshawk	155
White-bellied sea eagle	118
Green and Gold frog	110
North-east forest snail	82
Mt Mangana stag beetle	73
North-west velvet worm	61
Hydrobiid snails	58
Australian grayling	39
Keeled snail	39
Ptunarra brown butterfly	33
Giant velvet worm	27
Mt Arthur burrowing crayfish	22
Swift parrot	21
Simson's stag beetle	20
Skemps snail	16
Broad-toothed stag beetle	14
Not specified	13
Swan galaxias	12
Cave-dwelling invertebrates	10
Burgundy snail	9
New Holland mouse	9
Bornemisszas stag beetle	8
Vanderschoors stag beetle	8
Burnie burrowing crayfish	7
Scottsdale burrowing crayfish	7
Caddisflies	6
Tasmanian bettong	6
Blind velvet worm	4
Broad striped ghost moth	2
Dwarf galaxias	2
Golden galaxias	2
Saddled galaxias	2
Arthurs paragalaxias	1
Clarence galaxias	1

Table 2. Summary of the tenure of fauna evaluations assessed by the Zoology program for the past five years. *Note: private property includes industrial freehold and other private land; State forest includes all public tenures (e.g. Hydro Tasmania, Crown, State forest).*

Tenure	Number of advice requests 1996/97	Number of advice requests 1997/98	Number of advice requests 1998/99	Number of advice requests 1999/00	Number of advice requests 2000/2001	Number of advice requests 2001/2002
State forest	132	258	207	331	301	372
Private property	155	184	198	222	313	311
Total	287	442	405	553	614	683

Collaborative work continued in 2001/2002 into the development of strategic plans for the conservation of swan galaxias, simsons stag beetle, north-west velvet worm, keeled snail, giant velvet worm and Mt Mangana stag beetle on State forest.

The threatened fauna locality database was updated by the Scientific Officer during 2001/2002 as new localities became available. The new data was supplied to Forestry Tasmania, the TSU, DPIWE and other industry GIS as requested.

The Scientific Officer, Suzette Wood, made minor updates to the Web based Threatened Fauna manual throughout the year. This included changes to locality records on 1:25000 mapsheets and minor updates to species profiles and recommendations.

The revised Threatened Fauna Adviser program was endorsed by the Threatened Species Scientific Advisory Committee and the Forest Practices Advisory Council in August 2001. It was released for use by forest practices officers under the agreed procedures for Threatened Fauna Management in September 2001. Minor changes were made periodically throughout the rest of the year following its release. A process was developed and has been agreed with TSU for the updating of all planning tools used under the Forest Practices System for the conservation management of Threatened

Fauna.

Ten new species were added to the schedules of the *Threatened Species Protection Act 1995* in 2001. Funding was obtained from TSU, DPIWE for Suzette Wood to prepare listing statements for all of these species. The information gathered is being used to update the WEB based Threatened Fauna Manual. Research

An ARC Linkage grant proposal developed by L.Barmuta, P Davies, P.Macintosh and S. Munks for a collaborative project investigating the long-term impacts of forest practices on class 4 streams was successful.

A funding application to continue the study of platypus ecology in headwater areas was made to the WV Scott Bequest fund. \$40,000 was obtained in Jan 2002 for this work and comparative studies in downstream areas.

A funding proposal was prepared to investigate the distribution, habitat characteristics and conservation requirements of a threatened snail, Skemps snail. \$2,000 has been obtained from TSU, DPIWE.

The Senior Zoologist continued to co-supervise two projects undertaken by higher degree students. An MSc student, (stag beetle habitat and conservation management, occurrence), one PhD student (hydrobiid snail taxonomy, distribution and habitat requirements) and an overseas MSc student (impact of forest

practices on platypus habitat in headwater streams).

Due to altered logging schedules a fourth pre-logging sample was obtained during 2001/2002 for the long term project which aims to monitor the impact of forest practices on simons stag beetle.

Progress with ongoing research projects is as follows-

Investigation of the effectiveness of management prescriptions for the retention of swift parrot foraging habitat in production forests in Tasmania (personnel: Karen Richards, Jeff Meggs, Sarah Munks, Ray Brereton) –Funded by NFP (now Gunns). See last years report for details.

A draft of a paper from this work has been prepared and accepted for inclusion in a Chapter of 'Forest Fauna' 2nd Edition, edited by Dan Lunney.

Assessing the implementation of Forest Practices Code provisions relating to the retention of hollow bearing trees in production forests in Tasmania.

(personnel: Mark Wapstra, Sarah Munks, Bill Manning, Nathan Duhig, Helen Otley)

Data collected during the FPB fauna audit are being utilised in this study (funded by FPB and FT/FIAT research fund) to assess the standard of implementation of current FPC provisions for the retention of hollow bearing trees. In particular, the extent to which hollow bearing trees ('habitat trees') are maintained in harvest areas using the current patch retention strategy will be assessed.

Data collection and entry was completed in 2000/2001. Data analysis began in Jan 2002.

Assessing the relationship between the occurrence of hollow bearing trees in the landscape and environmental variables.

(personnel: Sarah Munks, Mark Wapstra, Helen Otley, George Miller, Ross Corkery)

The aims of this preliminary project (funded by FP Research Fund and FPB) were to:

1. To determine the distribution and density of hollow bearing trees in different dry forest types and in different topographic locations,

2. To investigate the relationship between habitat variables and the occurrence of hollow bearing trees.

It is hoped that the results of the project will enable the prediction of the occurrence of hollow bearing trees in a particular area of forest. Data collection and entry was completed in 2000/2001 and analysis began in late 2001.

Characteristics and occurrence of nesting habitat utilised by hollow-dependent fauna in Tasmania's production forests (personnel: Mark Wapstra, FPB Scientific Officer)

The overall aim of this study (funded by Birds Australia) which started in 1999 is to obtain information urgently required for the refinement of current FPC provisions for the retention of habitat for hollow dependent fauna. The study will investigate the characteristics of nest sites used by hollow dependent fauna in dry production forest. It will then examine the distribution of potential nest sites throughout the landscape and the ability of the current code provisions to capture such areas.

Further funding will be sought to continue this project in 2002/2003.

Assessment of habitat suitability for juvenile freshwater lobster (*Astacopsis gouldi*) and the impact of logging in Class 3 and 4 streams (personnel: P.E.Davies and L.Cook have been contracted to undertake this work)

This project (funded by FT, DPAC, NFP and FT) continued in 2001-2002.

Distribution and impact of cable harvesting on hydrobiid snails (personnel: P.E.Davies and L.Cook have been contracted to undertake this work)

This project has been delayed due to funding shortage. However with the support of FT Derwent District the survey work will be extended in 2002 to include other coupes/catchments either in the Wedge block and before/after impact sites will be set up.

Systematics and habitat preferences of hydrobiid snails (*Hydrobiidae: Beddomeia*) in Tasmania (personnel: Karen Richards, PhD student)

*This study (funded by TSU, DPIWE, FPB and TCT) aims to determine whether sufficient genetic differentiation exists to warrant the current speciation based on morphological characteristics (Ponder et al 1993). It also aims to increase current knowledge of the characteristics of habitat where the species' occur, and to obtain information on population variations of several *Beddomeia* species within two catchments. If suitable sites can be selected, information will be obtained on the impact of forestry operations on populations of the species. It is hoped that the latter part of the project will allow the refinement of management recommendations for the genus.*

Two seasons of field data collection have been completed in the Groom River catchment and Castra Rivulet catchment.

The ecology of platypus, *Ornithorhynchus anatinus* in the upper catchment streams of the South Esk River, with particular emphasis on Order 1 streams. (Personnel: Nina Koch, Sarah Munks, Marcus Utesch, Suzette Wood, Jason Wiersma, Peter Macintosh)

The project started in November 2000 and forms part of the concurrent study on the impact of forest practices on minor streams (McIntosh et al., see below). This study will also be

submitted by Nina Koch as a German diploma thesis at the University of Saarland in partial fulfilment of the requirements for the degree of 'Diplom Biogeograph'. The project was funded by FPB and Utas Platypus donation funds.

A draft paper from this work was prepared in 2001/02.

The work continued in Jan-April 2002 with an investigation of burrow usage and activity patterns of platypus in the headwater streams.

Long-term recovery of minor streams in native forests .(Personnel: P.Mcintosh, S.Bunce, P.Davies, L.Cook, S.Munks, M. Wapstra.)

A field day to inform those interested of the outcomes of this work was held in late 2001. The results of the biota studies are being written up for publication.

Linking landscape ecology and management to population viability analysis

(Personnel, FT and Melbourne Uni and species specialists)

This involves providing specialist input to species reviews and interpretation of PVA's developed for the ringtail possum, platypus and simmons stag beetle.

Part 2: Financial statements

STATEMENT OF FINANCIAL PERFORMANCE THE YEAR ENDED 30 JUNE 2002

	Note	2000-01 \$'000	2001-02 \$'000
Revenue from ordinary activities	2		
Industry Contributions		922	1,071
State Government Appropriation		365	430
Grants		126	143
Fines		3	6
Other Revenue		134	148
Total revenue from ordinary activities		1,550	1,798
Expenses from ordinary activities (excluding borrowings)			
Employee entitlements	3(a)	1,148	1,165
Advertising and Promotion		2	2
Communications	3(b)	27	27
Consultancies		76	73
Depreciation	1(e) & 5	2	5
Information Technology		42	35
Rental of Accomodation		49	55
Other Accomodation Related		21	13
Travel and Transport		151	156
Other Operating Expenses		188	202
Total expenses from ordinary activities (excluding borrowings)		1,706	1,733
Net operating surplus/(deficit) from ordinary activities	2	(156)	65

Notes 1-10 form an integral part of these accounts.

**STATEMENT OF FINANCIAL PERFORMANCE BY ACTIVITY FOR THE YEAR ENDED
30 JUNE 2002**

	Note	SELF-FUNDING ACTIVITIES		INDEPENDENT REGULATION ACTIVITIES	
		2000-01 \$'000	2001-02 \$'000	2000-01 \$'000	2001-02 \$'000
Revenue from ordinary activities	2				
Industry contributions		922	1,071	....	....
State Government appropriation		....	....	365	430
Grants		126	143	....	....
Fines		....	....	3	6
Other revenue		133	131	1	17
Total revenue from ordinary activities		1,181	1,345	369	453
Expenses from ordinary activities (excluding borrowings)					
Employee entitlements	3(a)	862	877	286	288
Advertising and promotion		1	....	1	2
Communications		21	20	6	7
Consultancies	3(b)	75	56	1	17
Depreciation	1(e) & 5	2	5	....	....
Information technology		32	24	10	11
Rental of accommodation		38	38	11	17
Other accommodation related		17	9	4	4
Travel and transport		113	127	38	29
Other operating expenses		133	118	55	84
Total expenses from ordinary activities (excluding borrowings)		1,294	1,274	412	459
Net operating surplus/(deficit) from ordinary activities	2	(113)	71	(43)	(6)

Notes 1-10 form an integral part of these accounts.

FINANCIAL STATEMENTS FOR THE YEAR ENDED 30 JUNE 2002

STATEMENT OF FINANCIAL POSITION AS AT 30 JUNE 2002

	Note	2000-01 \$'000	2001-02 \$'000
Current assets			
Operating account balance	4 & 8(a)	67	218
Receivables		217	145
Prepayments		....	1
Total current assets		284	364
Non-current assets			
Property, plant and equipment	5	6	6
Total non-current assets		6	6
Total assets		290	370
Current liabilities			
Creditors and accrued expenses		22	18
Employee entitlements	6	109	123
Total current liabilities		131	141
Non-current liabilities			
Employee entitlements	6	150	155
Total non-current liabilities		150	155
Total liabilities		281	296
Equity			
Accumulated surplus	7	9	74
Total liabilities and equity		290	370

Notes 1-10 form an integral part of these accounts.

FINANCIAL STATEMENTS FOR THE YEAR ENDED 30 JUNE 2002

STATEMENT OF CASH FLOWS FOR THE YEAR ENDED 30 JUNE 2002

	Note	2000-01 \$'000	2001-02 \$'000
Cash flows from operating activities			
<i>Cash inflows</i>			
Industry contributions		811	1,147
State Government appropriation		365	430
Other cash receipts		234	291
Total cash inflows		1,410	1,868
<i>Cash outflows</i>			
Employee entitlements		1,111	1,147
Other cash payments		544	565
Total cash outflows		1,655	1,712
Net cash from (used by) operating activities	8(b)	(245)	156
Cash flows from investing activities			
<i>Cash inflows</i>			
Receipts from disposal of assets		....	....
Total cash inflows		....	....
<i>Cash outflows</i>			
Payments for purchase of non-current assets		8	5
Total cash outflows		8	5
Net cash from (used by) investing activities		(8)	(5)
Net increase (decrease) in cash held		(253)	151
Cash at the beginning of the year		320	67
Cash at the end of reporting period	4 & 8(a)	67	218

Notes 1-10 form an integral part of these accounts.

NOTES TO AND FORMING PART OF THE FINANCIAL STATEMENTS FOR THE YEAR ENDED 30 JUNE 2002

1. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

(a) Basis of Accounting

The Forest Practices Board of Tasmania is a body corporate, established by the *Forest Practices Act 1985*. The financial statements have been prepared on an accrual accounting basis in accordance with applicable Australian Accounting Standards and all relevant legislation.

The financial statements have been prepared using historical cost accounting, with the exception that non-current physical assets, are valued at their current value to the Board, determined by reference to the asset's deprival value.

Assets and liabilities are recognised in the Board's Statement of Financial Position when it is probable that future economic benefits will flow and the amounts of the assets or liabilities can be reliably measured.

Revenues and expenses are recognised in the Board's Statement of Financial Performance when the flow or consumption or loss of economic benefits has occurred and can be reliably measured.

(b) Operations of the Board

The role of the Forest Practices Board is to advance the objective of the State's forest practices system and to foster a cooperative approach towards policy development and management. The Board facilitates self-regulation through the training and oversight of the work done by Forest Practices Officers employed within the forestry sector. This is underpinned by research and advisory services that promote continuing improvement. The Board also independently monitors, enforces and reports to Parliament on the standards achieved and on the degree of compliance with the Forest Practices Code and *Forest Practices Act 1985*.

(c) Statutory Matters

Under the requirements of the *Forest Practices Act Amendment 1999* the Board is required to produce accrual financial statements, which commenced from 1 July 1999.

(d) Valuation of Non-Current Assets

Valuation of assets is undertaken in accordance with the Department of Treasury and Finance publication "Guidelines for the Recording, Valuation and Reporting of Non-Current Physical Assets in Tasmanian Government Departments 2002". The guidelines mandate that Land, buildings, infrastructure, heritage and cultural assets are to be valued on the fair value basis and other classes of non-current assets are to be valued on the historic cost basis.

In accordance with Treasurer's Instructions the asset capitalisation threshold adopted by the Board is \$5,000. Assets valued at less than \$5,000 are charged to the operating statement in the year of purchase.

(e) Depreciation on Non-Current Assets

All non-current assets having a limited useful life are systematically depreciated over their useful lives in a manner that reflects the consumption of their service potential.

(f) Provision for Employee Entitlements

Employee entitlements include entitlements to wages and salaries, annual leave, sick leave, long service leave and superannuation benefits.

Liabilities for wages and salaries and annual leave are recognised, and are measured as the amount unpaid at the reporting date at current pay rates in respect of employees' services up to that date. The liability for sick leave is not material and has not been recognised.

A liability for long service leave is recognised, and is measured as the present value of expected future payments to be made in respect of services provided by employees up to the reporting date. Consideration is given, when assessing expected future payments, to expected future wage and salary levels plus on costs, experience of employee departures and periods of service. On-costs include payroll tax and employer superannuation contributions and exclude workers' compensation premiums and fringe benefits tax. Expected future payments are discounted using interest rates attaching, as at the reporting date, to Commonwealth Government guaranteed securities with terms to maturity that match, as closely as possible, the estimated future cash outflows. The Board uses reliable estimations based on the process outlined above to determine its Long Service Leave Provision.

(g) Superannuation

No superannuation liability is recognised for the accruing superannuation benefits of Board employees. This liability is held centrally and recognised within the Finance-General Division of the Department of Treasury and Finance.

During the reporting period, the Board paid the relevant percentage of salary in respect of contributory members of the Retirement Benefits Fund into the Superannuation Provision Account within the Special Deposits and Trust Fund. The Board paid the appropriate Superannuation Guarantee Charge into the nominated superannuation fund in respect of non-contributors. Under these arrangements the Board has no further superannuation liability for the past service of its employees.

(h) Comparative Figures

Comparative figures have been adjusted to conform to changes in presentation in these financial statements where required.

(i) Rounding

All amounts in the financial statements have been rounded to the nearest thousand dollars unless otherwise stated.

(j) Board Taxation

The Board is exempt from all forms of taxation except fringe benefits tax, payroll tax and the goods and services tax. The Board's obligations for the goods and services tax are included in grouping arrangements with the Department of Infrastructure, Energy and Resources. Accordingly, no payments or receipts of goods and services tax are recorded directly against the Board's operations.

2. FUNDING OF THE BOARD'S OPERATIONS

The functions of the Board can be divided into two main areas, namely:

- Self-funding Activities

These activities comprise the Research and Advisory program which is supported by industry contributions and other individual projects supported by either industry grants, Commonwealth grants, or RFA funding. Other revenue received is primarily for the recovery of training and publication costs.

The Board reports in accordance with Section 4E(1)(a) that the forest practices system in 2001-02 satisfied the principle of self-funding. The Board notes with pleasure that negotiations with the private sector have resulted in voluntary agreement on equitable and secure arrangements for funding.

- Independent Regulation Activities

These activities are primarily supported by State Government funding. On an accrual basis there was a \$6,000 deficit in funding for these activities during 2001•02.

Fines collected by the Board relate to penalties imposed under s.47B of the *Forest Practices Act 1985*.

To reflect these separate activities an additional operating statement has been prepared which breaks up the operating revenue and operating expenditure between each of the activities.

3. EXPENSES FROM ORDINARY ACTIVITIES

There were no major variations in expenditure categories between the 2001-02 and 2000•01 financial years.

4. OPERATING ACCOUNT BALANCE

From 1 July 1999 the Board's financial services have been provided by the Department of Infrastructure, Energy and Resources. The Board's funds are separately accounted for within the Department's operating account which is held with the Department of Treasury and Finance. The balance of the Board's funds held within this account as at 30 June 2002 was:

	2000-01 \$'000	2001-02 \$'000
Independent regulation activities	27	23
Self-funding activities	40	195
Total	67	218

5. NON-CURRENT ASSETS

(a) Items

	2000-01 \$'000	2001-02 \$'000
Computer Equipment at Cost	8	13
Accumulated Depreciation	(2)	(7)
	6	6

(b) Depreciation Allocated and Useful Lives

	Useful Lives (years)	2000-01 \$'000	2001-02 \$'000
Computer Equipment	3	2	5
Total Depreciation		2	5

6. EMPLOYEE ENTITLEMENTS

	2000-01 \$'000	2001-02 \$'000
Accrued Salaries	28	26
Provision for Annual Leave	73	75
Provision for Long Service Leave	158	177
Total	259	278
Classified as:		
Current	109	123
Non-current	150	155
	259	278

7. EQUITY

Equity represents the residual interest in the net assets of the Board.

Changes during the 2001-02 financial year include an operating surplus from operations of \$65,000.

	2000-01 \$'000	2001-02 \$'000
Balance at the beginning of the period	165	9
Operating surplus/(deficit) from operations	(156)	65
Balance at the end of the period	9	74

8. CASH FLOWS**(a) Reconciliation of Cash**

For the purposes of the Statement of Cash Flows, the Forest Practices Board considers include cash held on its behalf within the Department of Infrastructure, Energy and Resources Operating Account. Cash at the end of the financial year as shown in the Statement of Cash Flows is reconciled to the related items in the Statement of Financial Position as follows:

	2000-01 \$'000	2001-02 \$'000
Cash at year end per Statement of Cash Flows	67	218
Statement of Financial Position Cash	67	218

(b) Reconciliation of net cash provided by operating activities to net operating surplus/(deficit) from ordinary activities

	2000-01 \$'000	2000-01 \$'000
Net cash flows from operating activities	(245)	156
Depreciation	(2)	(5)
(Increase)/decrease in employee entitlements	(39)	(19)
(Increase)/decrease in creditors and accrued expenses	(12)	4
Increase/(decrease) in receivables	142	(72)
Increase/(decrease) in prepayments	.....	1
Operating Surplus/(Deficit)	(156)	65

(c) Credit Arrangements

The Forest Practices Board does not have any credit stand-by arrangements or loan facilities.

9. ADDITIONAL FINANCIAL INSTRUMENTS DISCLOSURES**(A) INTEREST RATE RISK EXPOSURES**

There was no interest rate applicable on Forest Practices Board balances held within the Department of Infrastructure, Energy and Resources Operating Account for the year ended 2002. Exposure to interest rate and credit risks is therefore considered to be minimal.

(B) CREDIT RISK EXPOSURES

Credit risk represents the loss that would be recognised if counterparties failed to perform as contracted.

The credit risk on financial assets, excluding investments, of the Forest Practices Board will be recognised on the balance sheet, is the carrying amount, net of any provision for debts.

The Forest Practices Board extends 30 day credit terms for sundry receivables, and standard commercial credit terms for sundry creditors.

The Forest Practices Board is not materially exposed to any individual overseas credit individual customer.

(C) NET FAIR VALUES OF FINANCIAL ASSETS AND LIABILITIES

The carrying amount of operating account balances, receivables and prepayments, credit provisions for employees' entitlements approximates the net fair value because of the short maturity.

10. OPERATING LEASE COMMITMENTS

	2000-01	2001-02
	\$'000	\$'000
Minimum Lease Payment	96	112
Contingent Rentals	...	...
Sub-Lease Rental Expenses	...	...
	96	112

	2000-01	2001-02
	\$'000	\$'000
Total Lease Commitments	115	220
	115	220

Future lease payments, rentals and commitments not provided in these statements include:

	2000-01	2001-02
	\$'000	\$'000
Not later than 1 year	96	112
Later than 1 year and not later than 5 years	19	98
Later than 5 years	...	...
	115	220

The Forest Practices Board leases are represented by land and building rental costs, vehicle lease costs and equipment lease costs.

Contingent rental costs relate to the land and building leases, and in the main comprise government charges and the periodic escalation of leases by the Consumer Price Index.

Since Contingent rentals cannot be reliably determined, they have been excluded from the calculations of Total Lease Commitments. There is no difference between the value of minimum lease payments and the value of Total Lease Commitments.

The Board does not have any purchase rights flowing from the lease of the land and buildings.

The minimum lease payment for vehicles is based on the average age of the vehicle fleet and the standard lease period of 24 months.

FOREST PRACTICES BOARD

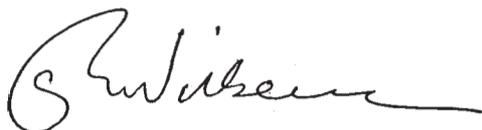
FINANCIAL STATEMENTS FOR THE YEAR ENDED 30 JUNE 2001

CERTIFICATION OF FINANCIAL STATEMENTS

The accompanying financial statements of the Forest Practices Board are in agreement with the relevant accounts and records and have been prepared in compliance with Treasurer's Instructions issued under the provisions of the *Financial Management and Audit Act 1990* to present fairly the financial transactions for the year ended 30 June 2002 and the financial position as at end of the year.

At the date of signing, we are not aware of any circumstances which would render the particulars included in the financial statements misleading or inaccurate.

Dated this 31st day of October 2002



Graham Wilkinson
(CHIEF FOREST PRACTICES OFFICER)



Kim Evans
(CHAIRMAN)



INDEPENDENT AUDIT REPORT

To the Members of the Forest Practices Board

Scope

I have audited the financial report of the Forest Practices Board comprising Operating, Financial Position and Cash Flows Statements and notes thereto, for the year ended 30 June 2002. The Members of the Board are responsible for the financial report. I have conducted an independent audit of the financial report in order to express an opinion on it to the Members.

The audit has been conducted in accordance with Australian Auditing Standards to provide reasonable assurance whether the financial report is free of material misstatement. My procedures included examination, on a test basis, of evidence supporting the amounts and other disclosures in the financial report, and the evaluation of accounting policies and significant accounting estimates. These procedures have been undertaken to form an opinion whether, in all material respects, the financial report is presented fairly in accordance with Australian Accounting Standards and other mandatory professional reporting requirements so as to present a view that is consistent with my understanding of the financial position of the Board and the results of its operations and cash flows.

The audit opinion expressed in this report has been formed on the above basis.

Audit Opinion

In my opinion the financial report presents fairly in accordance with Accounting Standards and other mandatory professional reporting requirements, the financial position of the Forest Practices Board as at 30 June 2002, and the results of its operations and cash flows for the year then ended.

A handwritten signature in black ink, appearing to read "C M Stanton".

C M Stanton
Director – Financial Audit

Delegate of the Auditor-General

7 November 2002

HOBART

Publications, reports and presentations by staff or associates of the Board*

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- Munks, S., Wapstra, M., Richards, K., Wood, S. and French, B.** (2001) Risdon prison redevelopment site master planning project – Vegetation and fauna survey report. A Report to the Justice Department, Nov 2001.
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- Wilkinson, G.R.** (2002). The regulation of forest practices in Tasmania. Presentation to a forum Implementation and monitoring of environmental standards – Australian and international models and systems, Melbourne, 27 February 2002.

(* staff or associates of the Board are indicated in bold type)

Major reference documents related to forest practices

Title	Published
An Atlas of Tasmanian Karst	1995
Fauna Conservation in Production Forests in Tasmania	1991
<i>Forest Practices Act</i> 1985 (as amended 1994, 1998, 1999)	1985
Forest Practices Code 2000	2000
Forest Practices Fauna Manual	1990
Forest Practices Archaeology Manual	1991
Forest Practices Soils Conservation Manual	1993
Forest Practices Geomorphology Manual	1990
Forest Practices Botany Manuals	1991-95
Forest Sinkhole Manual	2002
Forest Soils of Tasmania	1996
Threatened Fauna Manual for Production Forests in Tasmania	1998
A Manual for Forest Landscape Management	1990
Native Forest Silviculture Technical Bulletin series	1990-1999
Rehabilitation Guidelines for Forest Construction	1990

Appendix 2 Audit form for the assessment of Forest Practices Plans in 2001/2002

FOREST PRACTICES AUDIT 2001/2002

FPP No.	FPO	Prescription	Surveyor	Survey Date
<input type="text"/>				

TYPE OF OPERATION

Roading	clear & constn: <input type="checkbox"/>	Harvesting.....	Soft P: <input type="checkbox"/>	Refor. Establishment..	Soft P: <input type="checkbox"/>
	constn & harv: <input type="checkbox"/>		Hard P: <input type="checkbox"/>		Hard P: <input type="checkbox"/>
			Nat For: <input type="checkbox"/>		Nat For: <input type="checkbox"/>
Quarry	<input type="checkbox"/>	Equipment..Conventional:	<input type="checkbox"/>		
		Cable:	<input type="checkbox"/>		

Tenure: State Forest / Company PP / Independent PP / Crown Forest

District	Principle Processor (Company)	Contractor
<input type="text"/>	<input type="text"/>	<input type="text"/>

Ops Commenced: **Ops Completed:** **Restored?** **PTR?**

Operational Status: Not started / Roding / Pre-harvest / Harvesting / Post harvesting / Site Preparation / Regenerated / Interim Closure / Compliance Certification

SCORE:	0	1	2	3	4	5
Indicative %		>95	94-71	70-30	27-6	<5
Description	Not Applicable	Yes	Mostly	Variable	Mostly Not	No

Appendix 2

SCORE COMMENTS

Road Construction

- 1. Is road design appropriate?
- 2. Is road location appropriate?
- 3. Are roads parallel to Cl. 1 & 2 st. >100 m?
- 4. Are roads parallel to Cl. 3 & 4 st. >40 m?
- 5. Are table drains properly constructed?
- 6. Are table drains clear?
- 7. Has drainage been diverted in the 50 m before
a stream crossing?
- 8. Are batter slopes stable?
- 9. Is clearing minimised?
- 10. Has width of stripping of top soil been minimised?
- 11. Have borrow pits been rehabilitated?
- 12. Is road drainage adequate?
- 13. Is culvert size and spacing correct?
- 14. Is culvert depth correct? (damage)
- 15. Are culvert inlets and outlets correct (not on fill)?
- 16. Is surfacing OK for winter carting?
- 17. Have temporary stream crossings been removed and
waterbarred?
- 18. Have temporary tracks been drained?

Bridges, Fords, Causeways

- 19. Is disturbance kept to a minimum?
- 20. Have streambanks been restored?
- 21. Have bridge embankments been protected?

Harvesting

- 22. Are adjacent N.F. clearfell coupes >5 m dominant height?
(dispersed coupes)
- 23. Is there one year between N.F. clearfell coupes?
(dispersed aggregates) (NA if operating post 2001)
- 24. Has appropriate machinery been used?
- 25. Is coupe size <50 ha on steep cable coupes?
- 26. Is coupe size <100 ha on coupes?

Snig Tracks (STs)

- 27. Do STs avoid Class 1 and 2 watercourses?
- 28. Are stream crossings minimised?
- 29. Were temporary log crossings constructed where needed, with a designed opening (post 2001)
- 30. Have log crossings been removed?
- 31. Has tractor damage to stream banks been avoided?
- 32. Has snigging avoided streams?
- 33. Is direction of snigging uphill or on contour?
- 34. Does ST location facilitate draining?
- 35. Have STs been drained, if required?
- 36. Is drain spacing as per Code/FPP?
- 37. Is drain location and construction effective?
(no erosion)
- 38. Has rutting >400 mm (300 mm post 2001) over 20 m long been filled in?
- 39. Has slash been put on STs in wet plantation operation?
- 40. No evidence that soils puddled deeper than 200 mm
- 41. Have number of STs been minimised? (not parallel)
- 42. Has blading of mud or soil been avoided?

Landings

- 43. Has sediment from landings been prevented from entering streams?
- 44. Are landings on elevated areas?
- 45. Are landings >40 m from streamside reserves?
- 46. Has soil been stockpiled, where suitable?
- 47. Has soil been replaced (dry landing)?
- 48. Do snig tracks approach landings from below?
- 49. Have landings been corded (if required)?
- 50. Have landings been drained?
- 51. Has water flowing towards landings been diverted?
- 52. Are retained trees free of log debris?
- 53. Has the number of landings been minimised?
- 54. Are landings less than 0.2 ha? (50 m x 40 m), or less than 0.3 ha where authorised in FPP?
- 55. Has rubbish and oil been removed?
- 56. Low Intensity Burn or Unburnt- Have bark and butts been returned to the forest ?
- 57. High Intensity Burn – Have bark heaps and wood debris been properly heaped as per Code (pg44)?

Streamside Reserves (SRs)

- 58. Is width of SR correct as specified in FPP?
- 59. Was SR marked appropriately?
- 60. Were **no** trees felled within SRs unless specified?
- 61. Has <30% of crown cover been removed?
- 62. Is retained vegetation intact?
- 63. Has equipment been excluded from Cl. 4s? (10 m) except feller bunchers authorised to within 5 m in the FPP?
- 64. Have trees been felled away from SR?
- 65. Has logging debris been kept out of SRs?
- 66. Is there **no** evidence of sediment in streams (class 1, 2 and 3)?
- 67. Has vegetation damage by cables across SRs been avoided?
- 68. Has equipment been excluded from class 1, 2 and 3 streamside reserves?
- 69. In previously cleared 1, 2 & 3 Class streamside reserves, has management encouraged the establishment of native species (pg 81 Code)?

Site Preparation

- 70. Evidence that potential off site impacts have been considered and addressed (Pg 4 Code)
- 71. Have site prep. machines been excluded from SR?
- 72. Is site preparation within slope guidelines (p71)?
- 73. Has cultivation been along the contour?
- 74. Have catch drains been installed if cultivation is not on contour?
- 75. Have windrows been kept at least 10 m from streamside reserves?
- 76. Is cultivation at least 2 m from drainage depressions?
- 77. Is there **no** rill or gully erosion evident?
- 78. Have tracks and firebreaks been drained adequately?
- 79. Are tracks and firebreaks outside St Reserves?
- 80. Has burning of streamside reserves been avoided where practicable?

Forest Practices Plan (FPP)

- 81. Is soil erodibility class correct as in Code (Table 1)
- 82. Is the FPP thorough?
(Are all boxes and spaces filled in correctly
and with adequate/appropriate details?)
- 83. Is the FPP legible and clear?
- 84. Is the map clear?
- 85. Is the FPP a good FPP for the area?
(taking into account site conditions)
- 86. There have Not been any breaches of the FPP?
- 87. Has the FPP been correctly signed and
dated by all parties?
- 88. Has the FPP been followed?
- 89. Is the harvesting within the FPP boundary?

Notification

- 90. Has local government been consulted where
appropriate? (town water supply, road
access, development application).
- 91. Were neighbours notified at least 30 days prior to
commencement?

Reforestation

- 92. Is the prescribed stocking standard likely to be
achieved?

SPECIAL VALUES

FLORA

- 93. Have flora values been identified correctly?
 - Are sites of significance (section 4 of manual) in
coupe?
 - Have threatened species been identified within
or adjacent to coupe
 - Have an appropriate number of native forest
and non forest communities been identified,
taking into account size of coupe, variation in
geology, topography, drainage, aspect, altitude
& variation in PI type
- 94. Has the Forest Practices Unit Botanist been contacted if
required?
(If communities requiring protection through the RFA
have been identified from the coupe, has the area been
excluded from the operation and referred to the FPB
botanist)
- 95. Have prescriptions been included in the FPP by FPO or
through advice from FPB botanist?
- 96. Have prescriptions been followed?

FAUNA

- **Office**

- 97. Have known locations or habitat of threatened species been taken into account, including need for survey (e.g. eagles nests) - Threatened Fauna Manual checked and notification form sent if necessary?
- 98. Has MDC zoning been noted on map and/or as prescriptions (Fa zones, wildlife habitat strips) on State forest?
- 99. Are prescriptions for wildlife habitat strips adequate (width correct and noted, no felling, burning protection)?
- 100. Are prescriptions for habitat tree clumps adequate?

- **Field**

- 101. Have prescriptions for threatened species been implemented?

Wildlife Habitat Strip

- 102. Is width correct?
- 103. Was the strip protected during felling and from regeneration burn?

Habitat Tree Clumps

- 104. Is the number of clumps correct?
- 105. Is there an adequate number of each age class of tree (e.g. are there 2-3 mature hollow-bearing trees?)

GEOMORPHOLOGY

- **Preparatory**

- 106. Does the THP comply with MDC zoning on State forest?
- 107. Is the THP consistent with the Karst Atlas?
- 108. Have other information sources been used?
- 109. Has geomorphologist been consulted or consultant engaged as per pp. 36-37 of Geomorphology Manual as required?

- **Operational**

- 110. Have prescriptions been implemented satisfactorily?
- 111. Have Forest Practices Code karst provisions on pp.64-65 been complied with?
- 112. If any factors from pp. 36-37 of Geomorphology Manual exist, were they recorded in the THP evaluation sheet?

CULTURAL HERITAGE

- 113. Has the MDC zoning been complied with on State forest?
- 114. Were archaeological surveys done if required under the prescriptions of the archaeological potential zoning/predictive statements?
- 115. Were the archaeology site distribution, Conserve or reference material consulted?
- 116. Were there prescriptions to protect cultural heritage values?
- 117. If yes, were they complied with?
- 118. If a post operation survey was recommended, was it completed?
- 119. Was the Forest Practices Unit Archaeologist consulted, where required?

LANDSCAPE

- 120. Have all important viewpoints been identified?
- 121. Has the evaluation sheet been completed correctly and has it identified the important viewing issues?
- 122. Is the landscape result satisfactory?
- 123. Were adequate prescriptions developed in the Plan?
- 124. Have the prescriptions been implemented satisfactorily on the coupe?

Results of the annual audit of forest practices plans

Question

RATING*							
Total for all Tenure		Company PP		Independent PP		State Forest	
no.	%	no.	%	no.	%	no.	%

Roading

1	Is road design appropriate?	161	99	64	98	18	94	79	100
2	Is road location appropriate?	161	100	64	100	18	100	79	100
3	Are roads parallel to Cl. 1 & 2 st. >100 m?	70	99	33	97	4	100	33	100
4	Are roads parallel to Cl. 3 & 4 st. >40 m?	108	98	47	100	13	100	48	96
5	Are table drains properly constructed?	156	98	61	98	17	88	78	100
6	Are table drains clear?	155	98	61	98	16	94	78	99
7	Has drainage been diverted in the 50 m before stream	93	99	42	98	7	100	44	100
8	Are batter slopes stable?	142	99	57	100	13	100	72	99
9	Is clearing minimised?	122	100	45	100	14	100	63	100
10	Has width of stripping of top soil been minimised?	122	100	43	100	12	100	67	100
11	Have borrow pits been rehabilitated?	35	77	8	88	3	100	24	71
12	Is road drainage adequate?	163	96	65	95	18	89	80	99
13	Is culvert size and spacing correct?	154	96	59	97	18	78	77	100
14	Is culvert depth correct? (damage)	152	99	59	100	17	94	76	100
15	Are culvert inlets and outlets correct (not on fill)?	153	96	59	97	17	100	77	95
16	Is surfacing OK for winter carting?	122	99	42	98	7	100	73	100
17	Have temporary stream crossings been removed and waterbarred?	3	67	1	100	0		2	50
18	Have temporary tracks been drained?	21	95	12	100	3	67	6	100
	Weighted Mean		97.9		98.3		94.4		98.4
	Weighted Std		3.3		1.9		7.4		5.0

Bridges

19	Is disturbance kept to a minimum?	9	100	4	100	0		5	100
20	Have streambanks been restored?	8	100	4	100	0		4	100
21	Have bridge embankments been protected?	6	100	2	100	0		4	100
	Weighted Mean		100.0		100.0				100.0
	Weighted Std		0.0		0.0				0.0

Harvesting

22	Are adjacent N.F. clearfell coupes >5 m dominant height? (disper	17	100	1	100	0		16	100
23	Is there one year between N.F. clearfell coupes? (dispersed aggr	7	100	3	100	0		4	100
24	Has appropriate machinery been used?	137	100	59	100	16	100	62	100
25	Is coupe size <50 ha on steep cable coupes?	9	100	0		0		9	100
26	Is coupe size <100 ha on coupes?	98	98	43	100	12	100	43	95
	Weighted Mean		99.3		100.0		100.0		98.5
	Weighted Std		1.0		0.0		0.0		2.2

Results of the annual audit of forest practices plans (continued)

Question	RATING*											
	Total for all Tenure		Company PP		Independent PP		State Forest					
	no.	%	no.	%	no.	%	no.	%				
Snig Tracks (STs)												
27 Do STs avoid Class 1 and 2 watercourses?	59	97	27	100	4	50	28	100				
28 Are stream crossings minimised?	74	100	26	100	6	100	42	100				
29 Were temporary log crossings constructed where needed?	47	98	16	100	2	100	29	97				
30 Have log crossings been removed?	43	91	16	94	2	100	25	88				
31 Has tractor damage to stream banks been avoided?	99	98	45	100	10	100	44	95				
32 Has snigging avoided streams?	113	99	49	100	11	91	53	100				
33 Is direction of snigging uphill or on contour?	113	65	51	57	12	92	50	68				
34 Does ST location facilitate draining?	88	100	38	100	11	100	39	100				
35 Have STs been drained, if required?	70	96	30	93	6	83	34	100				
36 Is drain spacing as per Code/FPP?	67	100	28	100	5	100	34	100				
37 Is drain location and construction effective? (no erosion)	68	90	29	90	5	100	34	88				
38 Has rutting >400 mm over 20 m long been filled in?	9	100	4	100	1	100	4	100				
39 Has slash been put on STs in wet plantation operation?	23	100	9	100	2	100	12	100				
40 Puddling < 200mm on feeder STs	117	86	47	91	13	92	57	81				
41 Have number of STs been minimised? (not parallel)	106	100	45	100	13	100	48	100				
42 Has blading of mud or soil been avoided?	109	100	48	100	13	100	48	100				
Weighted Mean		93.8		93.7		94.8		93.6				
Weighted Std		10.1		12.8		9.8		10.0				
Landings												
43 Has sediment from landings been prevented from entering stream	102	98	47	100	12	83	43	100				
44 Are landings on elevated areas?	134	98	57	100	14	93	63	97				
45 Are landings >40 m from streamside reserves?	130	95	56	96	14	86	60	97				
46 Has soil been stockpiled, where suitable?	11	100	4	100	0		7	100				
47 Has soil been replaced (dry landing)?	11	100	4	100	0		7	100				
48 Do snig tracks approach landings from below?	119	96	53	96	12	83	54	98				
49 Have landings been corded (if required)? (page 36)	12	100	3	100	0		9	100				
50 Have landings been drained?	101	99	46	100	10	90	45	100				
51 Has water flowing towards landings been diverted?	110	96	50	98	12	92	48	96				
52 Are retained trees free of log debris?	54	94	24	92	7	86	23	100				
53 Has the number of landings been minimised?	132	97	56	98	14	93	62	97				
54 Are landings less than 0.2 ha? (50 m x 40 m)?	130	100	57	100	13	100	60	100				
55 Has rubbish and oil been removed?	133	96	58	97	14	93	61	97				
56 Low Intensity Burn-Have bark and butts been returned to forest or	23	22	6	0	5	20	12	33				
57 High Intensity Burn-Have bark heaps & wood been heaped as per	79	99	35	100	8	88	36	100				
Weighted Mean		95.9		97.1		87.4		96.8				
Weighted Std		10.2		10.4		14.1		9.3				

Results of the annual audit of forest practices plans (continued)

Question	RATING*											
	Total for all Tenure		Company PP		Independent PP		State Forest					
	no.	%	no.	%	no.	%	no.	%				
Stream Reserves												
58 Is width of SR correct as specified in FPP?	122	95	50	96	17	82	55	98				
59 Was SR marked appropriately?	114	98	46	98	13	92	55	100				
60 Were no trees felled within SRs unless specified?	105	99	46	100	11	91	48	100				
61 Has <30% of crown cover been removed?	3	100	2	100	0		1	100				
62 Is retained vegetation intact?	104	94	48	98	13	92	43	91				
63 Has equipment been excluded from Cl. 4s? (10 m)	116	93	47	98	14	79	55	93				
64 Have trees been felled away from SR?	114	96	47	98	12	92	55	95				
65 Has logging debris been kept out of SRs?	116	94	48	98	13	85	55	93				
66 Is there no evidence of sediment in streams (class 1, 2 and 3)?	100	97	44	98	10	90	46	98				
67 Has vegetation damage by cables across SRs been avoided?	9	89	1	100	0		8	88				
68 Has equipment been excluded from class 1, 2 and 3 streamside r	87	95	38	97	9	67	40	100				
69 In cleared SR has mgt encouraged establishment of native specie	13	38	6	33	5	20	2	100				
Weighted Mean		94.9		96.9		82.9		96.1				
Weighted Std		6.8		7.7		15.2		3.6				
Site Preparation												
70 Evidence that potential off site impacts have been considered and	24	96	14	93	5	100	5	100				
71 Have site prep. Machines been excluded from SR?	61	92	31	100	7	43	23	96				
72 Is site preparation within slope guidelines (p71)?	62	100	32	100	7	100	23	100				
73 Has cultivation been along the contour?	52	75	28	79	7	86	17	65				
74 Have catch drains been installed if cultivation is not on contour?	14	86	8	75	1	100	5	100				
75 Have windrows been kept at least 10m from streamside reserves	54	96	30	100	4	50	20	100				
76 Is cultervation at least 2m from drainage depressions?	53	89	31	94	5	100	17	76				
77 Is there no rill or gully erosion evident?	61	97	31	100	7	86	23	96				
78 Have tracks and firebreaks been drained adequately?	64	86	28	79	3	100	33	91				
79 Are tracks and firebreaks outsidef SR ?	63	95	30	97	3	100	30	93				
80 Has burning of SRs been avoided ?	51	96	27	100	3	100	21	90				
Weighted Mean		91.9		93.8		84.6		91.2				
Weighted Std		6.9		8.7		21.4		9.8				
FPP												
81 Is soil erodibility class correct as in Code (Table 1)	169	98	66	98	22	91	81	99				
82 Is the FPP thorough? (Are all boxes and spaces filled in correctly	169	95	66	100	22	86	81	94				
83 Is theFPP legible and clear?	169	95	66	100	22	86	81	93				
84 Is the map clear?	169	99	66	100	22	100	81	99				
85 Is the FPP a good FPP for the area? (taking into account site con	169	98	66	100	22	95	81	96				
86 Have there been any breaches of the FPP?	166	89	65	94	22	68	79	91				
87 Has the FPP been correctly signed and dated by all parties?	167	98	66	100	22	91	79	97				
88 Has the FPP been followed?	163	92	64	95	22	73	77	95				
89 Is the harvesting within the FPP boundary?	155	99	63	100	16	94	76	99				
Weighted Mean		95.8		98.6		87.0		95.8				
Weighted Std		3.2		2.2		10.0		2.7				

Results of the annual audit of forest practices plans (continued)

Question	RATING*											
	Total for all Tenure		Company PP		Independent PP		State Forest					
	no.	%	no.	%	no.	%	no.	%				
Notification												
90 Has local government been consulted where appropriate? (town	125	100	49	100	18	100	58	100				
91 Neighbours notified 30 days before start?	164	82	64	75	20	80	80	88				
Weighted Mean		89.6		85.8		89.5		92.8				
Weighted Std		9.1		12.4		10.1		6.2				
Reforestation												
92 Is the prescribed stocking standard likely to be achieved ?	98	94	43	91	11	100	44	95				
Weighted Mean		93.9		90.7		100.0		95.5				
Weighted Std												
Flora												
93 Have flora values been identified correctly?)	166	98	65	100	21	95	80	98				
94 Has the Forest Practices Unit Botanist been contacted (if required	39	95	15	93	6	83	18	100				
95 Have prescriptions been included in the FPP?	22	95	6	100	2	50	14	100				
96 Have prescriptions been followed	20	95	6	100	2	100	12	92				
Weighted Mean		97.2		98.9		90.3		97.6				
Weighted Std		1.5		2.5		11.9		2.2				
Fauna												
97 Have known locations or habitat of threatened species been take	167	88	65	89	21	76	81	90				
98 Has MDC zoning been noted on map and/or as prescriptions (Fa	64	100	0		0		64	100				
99 Are prescriptions for wildlife habitat strips adequate (width correct	36	89	2	100	1	100	33	88				
100 Are prescriptions for habitat tree clumps adequate?	74	91	31	94	9	67	34	94				
101 Have prescriptions for threatened species been implemented?	77	100	32	100	9	100	36	100				
102 Is Wildlife Habitat Strip width correct?	31	97	1	100	0		30	97				
103 Was the Wildlife Habitat Strip protected during felling and from re	31	97	1	100	0		30	97				
104 Is the number of Habitat Tree Clumps correct?	59	98	27	96	7	100	25	100				
105 Is there an adequate number of each age class of tree in Habitat	57	100	25	100	7	100	25	100				
Weighted Mean		94.3		94.6		85.2		95.5				
Weighted Std		5.3		4.5		13.8		4.6				
Geomorphology												
106 Does the FPP comply with MDC zoning on State forest?	66	97	6	100	1	100	59	97				
107 Is the FPP consistent with the Karst Atlas?	165	99	64	100	21	100	80	99				
108 Have other information sources been used?	140	99	54	96	20	100	66	100				
109 Has geomorphologist been consulted or consultant engaged as p	41	95	17	100	4	100	20	90				
110 Have prescriptions been implemented satisfactorily?	18	89	9	100	2	100	7	71				
111 Have Forest Practices Code karst provisions on pp.64-65 been co	5	100	2	100	1	100	2	100				
112 If any factors from pp.36-37 of Geomorphology Manual exist, wer	14	93	8	100	1	100	5	80				
Weighted Mean		97.8		98.8		100.0		96.7				
Weighted Std		2.4		1.8		0.0		5.7				

Results of the annual audit of forest practices plans (continued)

Question	RATING*											
	Total for all Tenure		Company PP		Independent PP		State Forest					
	no.	%	no.	%	no.	%	no.	%				
Cultural Heritage												
113 Has the MDC zoning been complied with on State forest?	58	100	2	100	0		56	100				
114 Were archaeological surveys done if required under the prescripti	27	89	3	100	3	67	21	90				
115 Were the archaeology site distribution, Conserve or reference mat	163	95	65	92	19	84	79	100				
116 Were there prescriptions to protect cultural heritage values?	19	100	9	100	2	100	8	100				
117 If yes, were they complied with?	19	100	9	100	2	100	8	100				
118 If a post operation survey was recommended, was it completed?	45	80	14	71	1	0	30	87				
119 Was the Forest Practices Unit Archaeologist consulted, where req	21	100	8	100	2	100	11	100				
Weighted Mean		94.3		91.8		82.8		97.2				
Weighted Std		6.3		8.5		18.4		5.1				
Landscape												
120 Have all important viewpoints been identified?	161	97	62	98	21	86	78	99				
121 Has the evaluation sheet been completed correctly and has it ide	164	93	65	95	21	81	78	95				
122 Is the landscape result acceptable?	161	97	64	98	21	90	76	97				
123 Were adequate prescriptions developed in the plan?	30	93	12	100	4	75	14	93				
124 Have prescriptions been implemented satisfactorily on the coupe?	28	96	12	100	4	75	12	100				
Weighted Mean		95.6		97.7		84.5		96.9				
Weighted Std		1.7		1.6		5.0		1.9				

* Rating is calculated as the proportion of the sample which contains a score of 1 or 2 as defined in Appendix 2
No. is the sample size for the question i.e. the no. of FPPs where the question was applicable.

MONITORING OF THE MAINTENANCE OF THE PERMANENT FOREST ESTATE

No. ¹	RFA Forest Community ²	1996 RFA Area (ha)	97/98 Decrease (ha)	98/99 Decrease (ha)	99/00 Decrease (ha)	00/01 Decrease (ha)	01/02 Decrease (ha)	Total Decrease (ha)	% of 1996 RFA Area
Woolnorth									
1	Coastal E. amygdalina dry sclerophyll forest	24783	0	0	257	1	3	260	1.1%
2	E. amygdalina forest on dolerite	18216	125	81	69	26	28	328	1.8%
3*	Inland E. amygdalina forest	912	30	1	23	4	7	65	7.1%
4	E. amygdalina forest on sandstone	324	0	1	2	1	0	4	1.1%
5	Allocasuarina verticillata forest	197	0	0	0	0	0	0	0.0%
6*	E. brookeriana wet forest	4467	54	3	23	38	16	133	3.0%
7	Acacia melanoxydon forest on flats	8004	9	25	56	88	46	224	2.8%
8	Acacia melanoxydon forest on rises	8073	38	0	21	9	38	106	1.3%
9*	Banksia serrata woodland	159	0	0	0	0	0	0	0.0%
10	E. coccifera dry forest	36	0	0	0	0	0	0	0.0%
12	Dry E. delegatensis forest	4308	0	0	40	15	2	57	1.3%
13#	E. viminalis/E. ovata/E. amygdalina/E. obliqua dsf	30145	642	309	183	174	77	1385	4.6%
14	Tall E. delegatensis forest	13546	324	470	623	328	243	1987	14.7%
16*	E. viminalis and/or E. globulus coastal shrubby forest	10	0	0	0	0	0	0	0.0%
19*	King Island E. globulus/E. brookeriana/E. viminalis forest	2426	0	0	0	0	0	0	0.0%
20	Leptospermum sp./Melaleuca squarrosa swamp forest	7449	0	0	3	11	0	14	0.2%
21	Callidendrous and thamnic rainforest on fertile sites	29890	383	119	596	796	887	2781	9.3%
22	Thamnic rainforest on less fertile sites	26216	0	33	67	39	44	183	0.7%
23*	Melaleuca ericifolia forest	198	0	0	0	1	5	7	3.3%
25	Dry E. nitida forest	14264	1	0	2	0	130	133	0.9%
27*	Notelaea ligustrina / Pomaderris apetala forest	47	0	0	0	0	0	0	0.0%

¹ Forest communities in which any area outside of reserves is protected on public land are shown with an asterisk (*); forest communities in which any old growth component outside of reserves is protected on public land are shown with a cross-hatch (#)

² Only forest communities that occur within the IBRA regions are listed

³ Results are estimates, based on RFA mapping and area data provided in Forest Practices Plans. The area shown as converted is generally based on gross area excluding informal reserves such as streamside reserves. The total area converted is therefore likely to be an over-estimate. Anomalies in mapping require further field verification. Area data may be modified, as mapping is refined.

Appendix 4 (continued)

28	Tall E. nitida forest	2964	0	3	20	27	33	84	2.8%
29	Dry E. obliqua forest	29236	898	296	361	386	192	2134	7.3%
30	Tall E. obliqua forest	125755	2053	3052	3180	2151	2078	12515	10.0%
31*	Shrubby E. ovata – E. viminalis forest	3034	2	22	5	27	5	60	2.0%
37	E. regnans forest	2663	90	80	268	152	61	651	24.4%
39*	E. rodwayi forest	129	0	0	0	3	0	3	1.9%
41	Silver wattle (Acacia dealbata) forest	16809	13	126	74	116	36	365	2.2%
43	E. subcrenulata forest	193	0	0	0	0	0	0	0.0%
47*	E. viminalis grassy forest	2965	10	0	33	14	0	57	1.9%
49*	Wet E. viminalis forest on basalt	2690	6	58	99	96	26	285	10.6%
	TOTAL	380108	4678	4678	6003	4500	3958	23817	6.3%
Ben Lomond									
1	Coastal E. amygdalina dry sclerophyll forest	133311	704	230	359	209	59	1561	1.2%
2	E. amygdalina forest on dolerite	44470	51	0	25	49	17	142	0.3%
3*	Inland E. amygdalina forest	4564	44	451	130	100	154	878	19.2%
4	E. amygdalina forest on sandstone	1022	25	30	87	51	11	204	19.9%
5	Allocasuarina verticillata forest	304	0	0	0	0	0	0	0.0%
7	Acacia melanoxylon forest on flats	255	0	0	0	2	7	9	3.5%
8	Acacia melanoxylon forest on rises	76	0	0	0	17	0	17	22.4%
12	Dry E. delegatensis forest	29819	215	417	89	139	25	884	3.0%
13#	E. viminalis/E. ovata/E. amygdalina/E. obliqua dsf	2088	85	281	415	158	47	986	47.2%
14	Tall E. delegatensis forest	47494	14	154	479	432	400	1479	3.1%
20	Leptospermum sp. / Melaleuca squarrosa swamp forest	42	0	0	0	0	0	0	0.0%
21	Callidendrous and thamnic rainforest on fertile sites	25181	0	0	36	18	57	111	0.4%
23*	Melaleuca ericifolia forest	390	0	0	0	0	0	0	0.0%
27*	Notelaea ligustrina / Pomaderris apetala forest	21	0	0	0	0	0	0	0.0%
29	Dry E. obliqua forest	29621	872	1180	1183	637	280	4152	14.0%
30	Tall E. obliqua forest	53555	868	1100	630	967	461	4026	7.5%
31	Shrubby E. ovata – E. viminalis forest	439	2	72	1	0	6	81	18.5%

Appendix 4 (continued)

36	E. pauciflora forest on sediments	1843	0	0	0	0	0	0	0	0	0	0	0.0%
37	E. regnans forest	27480	1297	1473	887	1500	958	6115	22.3%				
39*	E. rodwayi forest	40	0	0	0	75	1	76	CHECK				
40#	E. sieberi forest on granite	16862	0	6	1	110	0	117	0.7%				
41	Silver wattle (Acacia dealbata) forest	21798	88	170	74	20	36	388	1.8%				
42#	E. sieberi forest on other substrates	43366	8	35	60	0	0	103	0.2%				
47*	E. viminalis grassy forest	21404	0	37	0	5	6	48	0.2%				
49*	Wet E. viminalis forest on basalt	94	0	34	5	6	0	45	47.9%				
	TOTAL	505539	4272	5670	4461	4494	2524	21422	4.2%				
Midlands													
1	Coastal E. amygdalina dry sclerophyll forest	3321	0	0	0	0	0	0	0.0%				
2	E. amygdalina forest on dolerite	40110	100	107	20	7	30	263	0.7%				
3*	Inland E. amygdalina forest	19777	212	85	257	0	37	591	3.0%				
4	E. amygdalina forest on sandstone	3921	0	10	0	13	42	65	1.6%				
5	Allocasuarina verticillata forest	271	0	0	0	0	0	0	0.0%				
12	Dry E. delegatensis forest	9363	201	11	14	7	10	242	2.6%				
13#	E. viminalis/E. ovata/E. amygdalina/E. obliqua dsf	7796	398	78	104	10	0	590	7.6%				
14	Tall E. delegatensis forest	3951	0	0	21	5	0	26	0.7%				
16*	E. viminalis and/or E. globulus coastal shrubby forest	70	0	0	0	0	0	0	0.0%				
17*	Grassy E. globulus forest	2863	0	87	0	5	0	92	3.2%				
21	Callidendrous and thamnic rainforest on fertile sites	58	0	0	0	0	0	0	0.0%				
22	Thamnic rainforest on less fertile sites	124	0	0	0	0	0	0	0.0%				
24	E. morrisbyi forest	23	0	0	0	0	0	0	0.0%				
25	Dry E. nitida forest	7	0	0	0	0	0	0	0.0%				
27*	Notelaea ligustrina/Pomaderris apetala forest	40	0	0	0	0	0	0	0.0%				
29	Dry E. obliqua forest	13971	334	295	169	23	26	848	6.1%				
30	Tall E. obliqua forest	8159	0	124	58	47	32	260	3.2%				
31*	Shrubby E. ovata – E. viminalis forest	2727	0	6	30	1	0	37	1.4%				
32	E. pulchella/E. globulus/E. viminalis grassy shrubby dsf	28669	0	0	200	12	0	212	0.7%				

Appendix 4 (continued)

34#	E. pauciflora forest on Jurassic dolerite	451	0	0	45	0	0	0	45	0	0	0	0	10.0%
36	E. pauciflora forest on sediments	1163	0	0	0	0	0	0	0	0	0	0	0	0.0%
37	E. regnans forest	1366	16	30	0	20	2	68	0	0	0	0	0	5.0%
38*	E. risdomii forest	375	0	0	0	0	0	0	0	0	0	0	0	0.0%
39*	E. rodwayi forest	113	0	0	0	10	0	10	0	0	0	0	0	8.8%
41	Silver wattle (Acacia dealbata) forest	1872	0	0	0	0	0	0	0	0	0	0	0	0.0%
43	E. subrenulata forest	13	0	0	0	0	0	0	0	0	0	0	0	0.0%
46*	Inland E. tenuiramis forest	32657	0	0	4	0	0	4	0	0	0	0	4	0.0%
47*	E. viminalis grassy forest	56549	0	55	43	159	0	257	0	0	0	0	0	0.5%
49*	Wet E. viminalis forest on basalt	66	5	0	0	0	0	5	0	0	0	0	5	7.6%
	TOTAL	239846	1265	888	964	319	179	3615	179	179	34	123	324	1.5%
Freycinet														
1	Coastal E. amygdalina dry sclerophyll forest	28743	0	0	0	0	0	0	0	0	0	0	0	0.0%
2	E. amygdalina forest on dolerite	69708	375	278	0	30	16	698	0	0	0	0	0	1.0%
3*	Inland E. amygdalina forest	569	0	150	0	3	0	153	0	0	0	0	0	26.9%
4	E. amygdalina forest on sandstone	24020	214	0	0	2	0	216	0	0	0	0	0	0.9%
5	Allocasuarina verticillata forest	462	0	0	0	0	0	0	0	0	0	0	0	0.0%
6*	E. brookeriana wet forest	21	0	0	0	0	1	1	0	0	0	0	0	2.4%
10	E. coccifera dry forest	82	0	0	0	0	0	0	0	0	0	0	0	0.0%
11*	Callitris rhomboidea forest	650	0	0	0	0	0	0	0	0	0	0	0	0.0%
12	Dry E. delegatensis forest	66716	78	67	17	11	6	179	0	0	0	0	0	0.3%
13#	E. viminalis/E. ovata/E. amygdalina/E. obliqua dsf	0	0	34	0	0	0	34	0	0	0	0	0	CHECK
14	Tall E. delegatensis forest	21381	21	97	4	0	1	123	0	0	0	0	0	0.6%
16*	E. viminalis and/or E. globulus coastal shrubby forest	1038	0	0	0	0	0	0	0	0	0	0	0	0.0%
17*	Grassy E. globulus forest	10919	120	38	131	35	0	324	0	0	0	0	0	3.0%
20	Leptospermum sp./Melaleuca squarrosa swamp forest	81	0	0	0	0	0	0	0	0	0	0	0	0.0%
21	Callidendrous and thamnic rainforest on fertile sites	624	0	0	0	0	0	0	0	0	0	0	0	0.0%
27*	Notelaea ligustrina/Pomaderris apetala forest	20	0	0	0	0	0	0	0	0	0	0	0	0.0%
29	Dry E. obliqua forest	30535	175	293	18	41	47	573	0	0	0	0	0	1.9%
30	Tall E. obliqua forest	30675	0	17	205	115	87	424	0	0	0	0	0	1.4%

Appendix 4 (continued)

31*	Shrubby <i>E. ovata</i> – <i>E. viminalis</i> forest	727	0	0	0	0	0	0	1	1	0.1%
32	<i>E. pulchella</i> / <i>E. globulus</i> / <i>E. viminalis</i> grassy shrubby dsf 110390	1375	20	2	48	5	12	87	87	0.1%	
34#	<i>E. pauciflora</i> forest on Jurassic dolerite	47	0	0	0	0	0	0	0	0.0%	
36	<i>E. pauciflora</i> forest on sediments	3285	198	86	108	31	65	487	487	14.8%	
37	<i>E. regnans</i> forest	2159	0	0	0	0	0	0	0	0.0%	
39*	<i>E. rodwayi</i> forest	833	0	0	0	0	0	0	0	0.0%	
40#	<i>E. sieberi</i> forest on granite	2098	0	0	0	3	0	3	3	0.1%	
41	Silver wattle (<i>Acacia dealbata</i>) forest	2378	0	0	0	0	0	0	0	0.0%	
42#	<i>E. sieberi</i> forest on other substrates	3021	0	0	0	0	0	0	0	0.0%	
44	<i>E. tenuiramis</i> forest on granite	7577	0	0	2	4	0	6	6	0.1%	
45	<i>E. tenuiramis</i> forest on dolerite	2351	0	0	0	0	0	0	0	0.0%	
46*	Inland <i>E. tenuiramis</i> forest	21831	170	0	10	0	0	180	180	0.8%	
47*	<i>E. viminalis</i> grassy forest	815	0	0	0	0	0	0	0	0.0%	
49*	Wet <i>E. viminalis</i> forest on basalt	445131	1370	1061	543	279	235	3489	3489	0.8%	
	TOTAL										
Central Highlands											
1	Coastal <i>E. amygdalina</i> dry sclerophyll forest	257	0	0	0	0	0	0	0	0	0.0%
2	<i>E. amygdalina</i> forest on dolerite	5671	36	0	2	8	0	45	45	0.8%	
4	<i>E. amygdalina</i> forest on sandstone	49	0	1	0	1	0	2	2	4.1%	
6*	<i>E. brookeriana</i> wet forest	7	0	0	0	0	0	0	0	0.0%	
8	<i>Acacia melanoxylon</i> forest on rises	154	0	0	0	0	0	0	0	0.0%	
10	<i>E. coccifera</i> dry forest	49874	0	0	0	0	0	0	0	0.0%	
12	Dry <i>E. delegatensis</i> forest	165264	672	480	82	165	69	1467	1467	0.9%	
13#	<i>E. viminalis</i> / <i>E. ovata</i> / <i>E. amygdalina</i> / <i>E. obliqua</i> dsf	671	0	0	0	45	45	90	90	13.4%	
14	Tall <i>E. delegatensis</i> forest	154532	1508	1131	613	477	71	3799	3799	2.5%	
15	King Billy Pine with deciduous beech forest	192	0	0	0	0	0	0	0	0.0%	
20	<i>Leptospermum</i> sp. / <i>Melaleuca squarrosa</i> swamp forest	392	0	0	0	0	0	0	0	0.0%	
21	Callidendrous and thamnic rainforest on fertile sites	24435	195	306	167	521	146	1334	1334	5.5%	
22	Thamnic rainforest on less fertile sites	55154	0	1	85	0	0	86	86	0.2%	

Appendix 4 (continued)

25	Dry E. nitida forest	5997	0	0	0	0	0	0	0	0	0	0	0	0	0.0%
28	Tall E. nitida forest	2525	0	0	0	0	0	0	0	0	0	0	0	0	0.0%
29	Dry E. obliqua forest	6371	280	51	40	55	68	494	7.7%						
30	Tall E. obliqua forest	13980	182	146	77	93	67	564	4.0%						
31*	Shrubby E. ovata – E. viminalis forest	33	0	0	0	0	3	3	9.1%						
32	E. pulchella/E. globulus/E. viminalis grassy shrubby dsf	1726	40	0	0	0	0	40	2.3%						
33	Pencil Pine with deciduous beech forest	179	0	0	0	0	0	0	0.0%						
34#	E. pauciflora forest on Jurassic dolerite	17009	0	0	5	2	1	8	0.0%						
35	Pencil Pine forest	3768	0	0	0	0	0	0	0.0%						
36	E. pauciflora forest on sediments	13163	0	0	0	0	0	0	0.0%						
37	E. regnans forest	7576	7	109	82	183	44	424	5.6%						
39*	E. rodwayi forest	6235	0	0	1	0	0	1	0.0%						
41	Silver wattle (Acacia dealbata) forest	7075	0	0	0	27	4	31	0.4%						
43	E. subcrenulata forest	3646	0	0	0	0	0	0	0.0%						
45	E. tenuiramis forest on dolerite	10	0	0	0	0	0	0	0.0%						
46*	Inland E. tenuiramis forest	18905	0	0	0	0	0	0	0.0%						
47*	E. viminalis grassy forest	10311	0	30	1	0	2	33	0.3%						
49*	Wet E. viminalis forest on basalt	520	0	0	0	0	0	0	0.0%						
50	King Billy Pine forest	337	0	0	0	0	0	0	0.0%						
	TOTAL	576018	2919	2253	1154	1575	520	8421	1.5%						
West and Southwest															
6*	E. brookeriana wet forest	78	0	0	0	0	0	0	0.0%						
7	Acacia melanoxylon forest on flats	764	0	0	0	0	0	0	0.0%						
8	Acacia melanoxylon forest on rises	5007	0	275	0	10	0	285	5.7%						
10	E. coccifera dry forest	593	0	0	0	0	0	0	0.0%						
12	Dry E. delegatensis forest	6192	0	0	0	0	0	0	0.0%						
14	Tall E. delegatensis forest	20309	1	0	5	0	3	9	0.0%						
15	King Billy Pine with deciduous beech forest	659	0	0	0	0	0	0	0.0%						
16*	E. viminalis and/or E. globulus coastal shrubby forest	100	0	0	0	0	0	0	0.0%						

Appendix 4 (continued)

18	Huon Pine forest	8934	0	0	0	0	0	0	0	0	0	0	0	0.0%
20	Leptospermum sp. / Melaleuca squarrosa swamp forest	9445	0	0	165	0	165	0	0	0	165	0	165	1.7%
21	Callidendrous and thamnic rainforest on fertile sites	105120	0	156	97	0	97	0	0	0	253	0	253	0.2%
22	Thamnic rainforest on less fertile sites	272889	0	0	0	0	0	0	0	0	0	0	0	0.0%
25	Dry E. nitida forest	136654	4	0	0	0	5	0	0	0	9	0	9	0.0%
27*	Notelaea ligustrina / Pomaderris apetala forest	116	0	0	0	0	0	0	0	0	0	0	0	0.0%
28	Tall E. nitida forest	66557	10	200	0	0	0	0	0	0	210	0	210	0.3%
29	Dry E. obliqua forest	24925	0	135	31	0	0	0	0	0	166	0	166	0.7%
30	Tall E. obliqua forest	81922	162	181	383	249	111	152	118	492	1127	0	1127	1.4%
37	E. regnans forest	12775	1	0	262	111	0	0	0	0	0	0	0	3.9%
41	Silver wattle (Acacia dealbata) forest	468	0	0	0	0	0	0	0	0	0	0	0	0.0%
43	E. subcrenulata forest	2133	0	0	0	0	0	0	0	0	0	0	0	0.0%
50	King Billy Pine forest	13721	0	0	0	0	0	0	0	0	0	0	0	0.0%
	TOTAL	769361	178	947	681	637	272	272	272	2715	2715	0	2715	0.4%
D'Entrecasteaux														
1	Coastal E. amygdalina dry sclerophyll forest	61	0	0	0	0	0	0	0	0	0	0	0	0.0%
2	E. amygdalina forest on dolerite	221	0	0	0	0	0	0	0	0	0	0	0	0.0%
4	E. amygdalina forest on sandstone	797	0	1	0	0	0	0	0	0	1	0	1	0.1%
10	E. coccifera dry forest	3951	0	0	0	0	0	0	0	0	0	0	0	0.0%
12	Dry E. delegatensis forest	8146	1	61	0	0	0	0	0	0	62	0	62	0.8%
14	Tall E. delegatensis forest	24802	6	73	133	48	127	127	386	386	386	0	386	1.6%
15	King Billy Pine with deciduous beech forest	8	0	0	0	0	0	0	0	0	0	0	0	0.0%
17*	Grassy E. globulus forest	605	0	0	44	0	1	1	45	45	45	0	45	7.4%
18	Huon Pine forest	41	0	0	0	0	0	0	0	0	0	0	0	0.0%
20	Leptospermum sp./Melaleuca squarrosa swamp forest	1262	0	0	0	0	0	0	0	0	0	0	0	0.0%
21	Callidendrous and thamnic rainforest on fertile sites	6849	0	0	0	4	1	1	5	5	5	0	5	0.1%
22	Thamnic rainforest on less fertile sites	23847	0	1	1	0	0	0	2	2	2	0	2	0.0%
25	Dry E. nitida forest	3057	0	0	0	0	1	1	1	1	1	0	1	0.0%
27*	Notelaea ligustrina/Pomaderris apetala forest	41	0	0	0	0	0	0	0	0	0	0	0	0.0%

Appendix 4 (continued)

28	Tall E. nitida forest	2403	0	0	1	1	0	2	0.1%
29	Dry E. obliqua forest	29708	40	110	70	64	48	332	1.1%
30	Tall E. obliqua forest	112475	606	1365	934	1255	1030	5188	4.6%
31*	Shrubby E. ovata – E. viminalis forest	255	0	0	0	0	0	0	0.0%
32	E. pulchella/E. globulus/E. viminalis grassy shrubby dsf	10535	1	10	0	4	0	15	0.1%
35	Pencil Pine forest	11	0	0	0	0	0	0	0.0%
37	E. regnans forest	20999	392	464	805	379	395	2436	11.6%
41	Silver wattle (Acacia dealbata) forest	3981	0	0	0	6	0	6	0.2%
43	E. subcrenulata forest	4254	0	0	1	0	0	1	0.0%
45	E. tenuiramis forest on dolerite	846	0	0	0	0	0	0	0.0%
46*	Inland E. tenuiramis forest	1119	0	0	0	0	4	4	0.4%
47*	E. viminalis grassy forest	193	0	0	0	0	0	0	0.0%
50	King Billy Pine forest	2652	0	0	0	0	0	0	0.0%
	TOTAL	263119	1046	2085	1989	1760	1606	8485	3.2%
	STATE TOTAL	3179122	15728	17581	15796	13565	9294	71964	2.3%

Second Reading Speeches Forest Practices Amendment Acts 2001-2002

Forest Practices Amendment Act 2001

Mr LENNON (Franklin - Minister for Infrastructure, Energy and Resources)

Mr Deputy Speaker, the purpose of this bill is to clarify that non-commercial clearing of forests for the purposes of agriculture or other land use is subject to the same environmental regulation that currently applies to the commercial harvesting and clearing of forests. The amendments address part of the commitments in the Regional Forest Agreement for Tasmania to introduce effective mechanisms for the management of native vegetation.

Tasmania has a world-class system for the regulation of environmental protection within our publicly and privately owned forests. We have 40 per cent of our forests in reserves. The remaining forests provide substantial economic and social benefits to the Tasmanian community. They also provide significant environmental benefits through the provision of clean water, the protection of soils and the maintenance of habitat diversity for the conservation of our flora and fauna. These values are protected during forest operations through the provisions of the *Forest Practices Act 1985* and the Forest Practices Code.

Mr Deputy Speaker, for some time, the Government has been concerned that the high standards of environmental protection achieved in forestry operations do not always carry over to other forms of land use. In the past, the clearing of forest for other land use has been essential for the economic development of our State. Without such clearing, Tasmania would not enjoy the benefits that flow from our agricultural industry.

The Government recognises that further clearing may be necessary for ongoing economic development and growth. However, such development must be undertaken in a manner that is ecologically sustainable. With respect to forest clearing, all activities should be subject to the uniform and consistent standards of environmental protection that are provided under the Forest Practices Code. This is a matter of Statewide importance, and as such it is appropriate that it be regulated under State legislation.

In Tasmania, virtually all forest clearing is carried out under Forest Practices Plans prepared in accordance with the Forest Practices Code. However, there are a number of situations in which clearing is carried out without a Forest Practices Plan. These mainly relate to clearing that does not involve the subsequent utilisation of the timber, that is, where the timber is burned or left to decay. The Government recognises that it is not appropriate to have environmental regulation for forest clearing that only applies where the timber is harvested, and does not apply where the timber is burned or left to rot.

Mr Deputy Speaker, the Forest Practices Regulations provide appropriate exemptions from Forest Practices' plans for small-scale operations on land where the potential for environmental harm is low. This will continue. Clearing and maintenance of easements for infrastructure such as powerlines and public roads that are covered by separate regulatory frameworks will also be exempt from the requirements of this legislation.

Mr Deputy Speaker, the proposed amendments to the act and regulations do not preclude harvesting or clearing. They do, however, ensure that adequate environmental safeguards are in place to protect water quality, threatened species and any other significant natural and cultural values. Landowners wishing to clear forest will be required to apply to have a Forest Practices plan certified by an officer of the Forest Practices Board, in the same way that this is currently done by landowners who wish to harvest their forest. Applicants for Forest Practices plans retain their rights of appeal against decisions of the Forest Practices Board, as currently provided under the act.

The new requirements will affect only a small number of landowners. Very little forest clearing is conducted as 'non-commercial' operations outside of the *Forest Practices Act*. This is because Tasmania has a ready market for forest products, which makes it possible for landowners to earn income from their forests, rather than pay the high cost of clearing and leaving the timber to waste.

The regulation of non-commercial clearing will be carried out in accordance with the existing provisions of the *Forest Practices Act*. In particular, the cost of planning, approvals and supervision will be met by proponents under the principle of user-pays. The Government will implement the new measures in consultation with landowners and with a continuing emphasis on training, education and cooperation that has underpinned the success of the forest practices system.

Decisions on whether specific land may be cleared will remain subject to the policy on the Permanent Forest Estate, which is currently under review. The Private Forest Reserve Program under the Regional Forest Agreement provides a number of voluntary options for landowners to be paid for protecting significant forest communities. The options include management agreements, covenants and land purchase.

Mr Deputy Speaker, the amendments to the *Forest Practices Act* and regulations will ensure that Tasmania has an equitable and effective regulatory framework for forest clearing. Combined with the Government's policy on the Permanent Forest Estate, the changes will ensure that Tasmania maintains the highest levels of environmental protection, whilst also allowing opportunities for continued economic development. I commend the bill to the House.

Forest Practices Amendment (Tree Ferns) Act 2001

Mr LENNON (Franklin - Minister for Infrastructure, Energy and Resources).

The purpose of this bill is to provide for the regulation of the harvesting of tree ferns. This legislation provides a mechanism to deliver commitments under the Regional Forest Agreement for Tasmania to develop a tree fern management plan, which will be applied across all land tenures. The legislation also establishes a regulatory framework for the purposes of the Commonwealth's Wildlife Protection (Regulation of Exports and Imports) Act 1982. Under section 31 of that act, export of tree ferns is restricted, unless they are taken in accordance with an approved management program. The regulation of tree fern harvesting in Tasmania will be subject to the Tree Fern Management Plan.

Mr Speaker, under the management plan, the harvesting of *Dicksonia antarctica*, that is tree ferns, will be restricted to the salvage harvesting only of ferns that would otherwise be cleared from forestry areas being converted to non-forest use such as agriculture, plantation or roads. Research will be conducted into the sustainability of harvesting tree ferns from other forest areas. No other commercial harvesting of tree ferns will be permitted unless and until the sustainability of such harvesting can be established. The State and Commonwealth will review the management plan within three years to determine whether changes to the plan will be permitted.

The regulation of tree fern harvesting will be carried out under the forest practices system. All ferns will need to be tagged before leaving the harvested area. The tags will be issued by the Forest Practices Board upon the payment of a fee, which will pay for the regulation of the system and for research into the sustainability of the harvesting of tree ferns. The regulations will exempt small-scale harvesting for personal use by allowing up to six tree ferns to be harvested from a property without a requirement for a Forest Practices Plan. The tree fern industry is very keen for a tree fern regulation system to be put in place in the State, as this will facilitate tree fern exports and allow higher returns to be realised for this valuable resource.

Mr Speaker, this bill provides a framework for ensuring that the future utilisation of tree ferns is carried out in accordance with the principles of sustainable management. I commend the bill to the House.

Forest Practices Amendment (Conservation Covenants) Act 2002**Mr LENNON (Franklin - Minister for Infrastructure, Energy and Resources)**

The *Forest Practices Act 1985* prescribes conditions under which compensation may be paid to a landowner who has had an application for a private timber reserve refused. Claims for compensation generally relate to land that contains high conservation values, such as those associated with karst or threatened species.

The current act contains no provisions that relate to how these values are to be protected once compensation has been paid. In practice, a landowner who has been paid compensation for the refusal of a private timber reserve could sell the land and the owner could lodge a new application for a private timber reserve, thus triggering another round of compensation payments. Even if the land remains under the original owner, there is no obligation on the owner to protect the values for which the owner has been paid compensation.

The Government recognises that it is not appropriate for compensation payments to be made without a mechanism being put in place to secure the protection of the values. This bill provides that the owner must enter into a covenant in return for the payment of compensation. The covenant will prescribe the manner in which the values are to be protected.

The legislation will be fair for landowners. Negotiations on covenants will be similar to the current provisions within the National Parks and Wildlife Act 1970 that relate to the refusal of a forest practices plan because of threatened species. The proposed amendments will ensure a reasonable time frame within which negotiations must be completed, and will also ensure that the refusal of a private timber reserve will be overturned where the minister - administering the National Parks and Wildlife Act 1970 - does not pay compensation within the prescribed time period. The provisions within the existing *Forest Practices Act 1985* that relate to arbitration in the event of disagreement over the payment of compensation remain unchanged.

I commend the bill to the House.