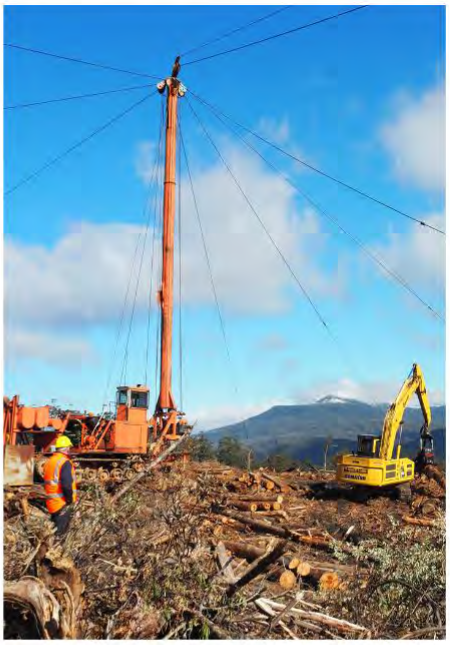

Forest Practices Authority

Annual Report

2019–20

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FOREST PRACTICES AUTHORITY
TASMANIA AUSTRALIA

A report on the operations of the Forest Practices Authority to the
Minister for Resources, to be laid before
each house of parliament as required under
s. 4C, 4E, 4X and 4ZA of the *Forest Practices Act 1985*

The Annual Report of the Forest Practices Authority

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Cover clockwise from top left: FPA Forest Practices Adviser James Fergusson (centre) helping learners on the FPA's Quarry FPP Course; FPA and DSG visit to TP Bennett and Sons cable harvesting operation in Southern Forests; TP Bennett and Sons employee driving the cable harvesting rig; FPA Ecologist Dydee Mann searching for Tasmanian devil dens by a rocky outcrop; FPA Ecologist Kirsty Kay assisting on the field trip on the Quarry FPP Training Course.

Abbreviations and acronyms

ARC	Australian Research Council
CFPO	Chief Forest Practices Officer
DPIPWE	Department of Primary Industries, Parks, Water and Environment
DSG	Department of State Growth (created in 2014, incorporating the Department of Infrastructure, Energy and Resources and the Department of Economic Development, Tourism and the Arts)
EPBCA	*Environment Protection and Biodiversity Conservation Act 1999*
FIAT	Forest Industries Association of Tasmania
FPA	Forest Practices Authority
FPAC	Forest Practices Advisory Council
FPO	Forest Practices Officer
FPP	forest practices plan
FPPF	Future Potential Production Forest
FT	Forestry Tasmania (on 1 July 2017 FT became Sustainable Timber Tasmania)
IPF	Industrial private forest
NIPF	Non-industrial private forest, identified in previous reports as Independent
NRM	Natural Resource Management
ODPP	Office of the Director of Public Prosecutions
PNFE Policy	Policy for Maintaining a Permanent Native Forest Estate
PTPZ land	Permanent Timber Production Zone Land
PTR	private timber reserve
RFA	Regional Forest Agreement
STT	Sustainable Timber Tasmania (formerly Forestry Tasmania)
TNVC	Threatened native vegetation community
TFA	Threatened Fauna Adviser
TFGA	Tasmanian Farmers and Graziers Association
TGD	Tasmanian Geoconservation Database
TPA	Threatened Plant Adviser
The Act	The *Forest Practices Act 1985*
The Code	The *Forest Practices Code*
UTAS	University of Tasmania
VMA	Vegetation management agreement

Contents

The Tasmanian forest practices system

The Forest Practices Authority (FPA) is the independent statutory body established by the Parliament of Tasmania under the *Forest Practices Act 1985* (the Act) to regulate forest practices in Tasmania. The forest practices system applies to forest practices that are undertaken on both public (mainly Permanent Timber Production Zone [PTPZ] land) and private land.

The Tasmanian forest practices system operates primarily through the Act and the associated *Forest Practices Code* (the Code). The system also takes account of other legislation and policies, including the Tasmanian Regional Forest Agreement 1997 (RFA) and the Policy for Maintaining a Permanent Native Forest Estate (PNFE Policy).

The system is based on a co-regulatory approach, combining self-management by the industry and independent monitoring and enforcement by the FPA. Forest Practices Officers (FPOs) are employed within the industry and trained and authorised by the FPA to plan, supervise, monitor and report on forest practices.

FPA staff provide advice on regulatory and technical matters, including requirements to manage natural and cultural values. The FPA also monitors forest practices to ensure that standards are being met. Corrective action is taken where required and penalties are imposed for serious breaches.

The forest practices system aims to foster cooperation amongst all stakeholders, including the government, landowners, the forest industry and the broader community. There is an emphasis on planning, training, education and continuous improvement.

Forest practices, defined by the Forest Practices Act, are:

- harvesting native forests and plantations
- establishing native forests and plantations
- clearing and converting forests and threatened non-forest native vegetation communities
- constructing roads and quarries for the above purposes
- harvesting treeferns.

Dion Robertson, a Forest Practices Officer with Sustainable Timber Tasmania, checks out a potential Tasmanian devil den in the southern forests.

The objective of the Tasmanian forest practices system is set down in Schedule 7 of the Act:

The objective of the State's forest practices system is to achieve sustainable management of Crown and private forests with due care for the environment and taking into account social, economic and environmental outcomes while delivering, in a way that is as far as possible self-funding–

(a) an emphasis on self-regulation; and

(b) planning before forest operations; and

(c) delegated and decentralized approvals for forest practices plans and other forest practices matters; and

(d) a forest practices code which provides practical standards for forest management, timber harvesting and other forest operations; and

(e) an emphasis on consultation and education; and

(ea) an emphasis on research, review and continuing improvement; and

(eb) the conservation of threatened native vegetation communities; and

(f) provision for the rehabilitation of land in cases where the forest practices code is contravened; and

(g) an independent appeal process; and

(h) through the declaration of private timber reserves – a means by which private land holders are able to ensure the security of their forest resources.

The forest practices system has developed over the last 35 years in response to evidence from research. Significant FPA research on soil carbon carried was published this year. Pictured are the last vestiges of a giant eucalypt in the Styx Valley. Mature 'wet' eucalypt forests are not the end point of forest succession – in the absence of fire they transition into rainforests containing about half the biomass carbon of the tall forests they replace. Details of the carbon research carried out by the FPA with Australian and overseas researchers has been published in the International Journal of Forest Research.

The year in brief 2019–20

- The level of forestry activities for 2019–20, as reported through the forest practices system, appears to have stabilised and is similar to the previous year.
- FPA specialists provided advice on natural and cultural values in response to 373 notifications (367 last year) lodged by FPOs. The FPA's specialists collaborated with other experts from government agencies and universities to develop advice and carry out research, monitoring and other activities.
- 551 forest practices plans (FPPs) were certified by the FPA (564 plans last year), totalling 30 590 ha (29 869 ha last year) on public and private land. The number of plans certified were 105 for native forest harvesting and reforestation (116 last year), 316 for plantation operations (343 last year), 9 for afforestation on cleared land (13 last year), 9 for quarries (6 last year) and 112 for roads (86 last year).
- FPPs were certified for the following:
    - 116 ha of new plantations on previously cleared land (62 ha last year) and 4 ha of new plantations on cleared native forest sites (48 ha last year)
    - the conversion of 3536 ha (2949 ha last year) of plantations to non-forest use, primarily agriculture
    - the conversion of 356 ha (530 ha last year) of native forest to other uses, resulted in a decrease of 0.01% in the area of Tasmania's native forest during 2019–20 (not including clearance for dams).
- The cumulative decrease (including clearance for dams) in the area of Tasmania's native forest between 1996 and June 2019 is 159 408 ha (159 053 last year) or 5.0 percent of the estimated 1996 native forest estate.
- The net effect of FPPs for clearing and new plantings of forest in Tasmania in 2019–20 was an overall decrease in the total area of forest by 3929 ha during the year (last year there was a decrease of 3348 ha).
- The annual assessment conducted by the FPA evaluated 29 FPPs and found that the implementation and effectiveness of FPPs across assessment categories, applicant groups and all land tenures continues to be satisfactory.
- Twelve (4 last year) prescribed fines totalling $62 000 ($103 000 last year) were received by the FPA for offences under the Act.
- Two new prosecutions commenced (0 last year) under the Act.
- The FPA raised $957 000 from sales of goods and services ($926 000 last year) which met its statutory requirement for self-funding.

Report of the Chair, Forest Practices Authority

On behalf of the Board of the Forest Practices Authority (FPA), I am pleased, as Chair, to present the Annual Report for 2019–20.

During 2019–20, the FPA continued with reform and development of its regulatory processes with a key focus on a revised *Forest Practices Code*, consideration of economic and social issues in the development of policies and guidelines and in decision making, and the development of a *Code of Conduct for Forest Practices Officers.*

In a co-regulatory system such as forest practices, the performance and commitment of FPOs is fundamental to the effective operation of that system. The FPA continues to invest in the upskilling and training of FPOs and in turn active FPOs continue to respond to the opportunity to maintain and improve their knowledge of the standards and best practice that the system requires. The Board acknowledges the ongoing work and commitment of the FPOs and thanks them for their efforts to achieve high levels of performance in both the planning and operational activities of the forestry sector.

In my report last year, I mentioned that the commercial forest sector maintains a positive and effective approach to meet the regulatory requirements of the system. That has continued in 2019–20. I also referred to the fact that some landowners clear trees on their land without seeking advice on either the regulatory controls that exist or seeking necessary approvals. There have been

Biodiversity Program Manager Anne Chuter assisting the Compliance Program with audits.

continued compliance issues associated with private landowners, requiring a considerable investigatory and reporting workload for FPA staff and the Board Compliance Sub-Committee which oversees the work in this area. The often challenging nature of this work is acknowledged by the Board, and the advice presented to the Board on the outcome of investigations is invariably detailed and of a high standard.

Essential and complementary to the regulatory activities of the FPOs is the work of the specialist staff employed by the FPA in understanding and advising on all aspects of forest ecology and science. As well as contributing practically to the planning and management of forest operations, these staff make a significant contribution to the ever accumulating body of knowledge that is relevant to achievement of the sustainable management of forestry. This knowledge is invariably translated into practical 'knowledge tools' to support forest planning and management. The development of the Threatened Plant Adviser during the past year is an outstanding example of the work of the FPA's specialist staff.

The Board thanks the Chief Forest Practices Officer Peter Volker for his energetic leadership of the FPA both in the office and in the field, and also thanks the staff of the FPA of their ongoing work and the excellent advice presented to the Board.

The Board also is most appreciative of the leadership provided to the Forest Practices Advisory Council (FPAC) by Hans Drielsma and the advice that the Board receives from the Council on forest sector issues. The support of the activities of the FPA by the members of FPAC is valued.

I am fortunate in my role as Chair of the FPA to have deeply interested, engaged and diligent colleagues on the Board. All Board members make significant contribution to discussion and resolution of the issues that come before the Board and to the management of the affairs of the FPA. Their ongoing contribution to leadership and oversight of the regulation of forest management in Tasmania is acknowledged and especially valued.

Forest practices plans

The overall performance rating achieved for 2019–20 across 29 FPPs (82.6%) was below that achieved in 2018–19 across 47 FPPs (94.5%). This is attributed to a change in sampling approach between years, with the focus of the 2019–20 assessment program being either operations that had not been comprehensively assessed in the last decade (quarrying) or where results in recent years were consistently below that expected by the FPA (operations performed by NIPF applicants on NIPF land) and required further follow up.

The 83.9% performance rating achieved for clearing and conversion to non-forestry land use operations in native forest (n=13) was below that expected by the FPA. This is attributed to inadequate supervision of these operations by applicants who lack experience in managing forest practices.

The 75.4% performance rating achieved across all tenures for quarrying (n=11) has highlighted some issues of compliance with FPPs. Managers of forest quarries authorised under FPPs have recognised the need to improve management of their facilities. Quarries will continue to be a focus of audits in future years.

The assessments completed for selective harvest in TNVC (n=3) and softwood plantation harvest and reforestation (n=2) were considered insufficient from which to draw firm conclusions.

Under s. 4E(1)(b) of the Act, the FPA reports that the implementation and effectiveness of FPPs across assessment categories and operation types is satisfactory, but with considerable scope for improvement in NIPF and quarry management.

Permanent native forest estate

The FPA reports, under s. 4C(fa) of the Act, that Tasmania's native forest estate has been maintained in accordance with the PNFE Policy. The area of native forest as at 30 June 2020 is 95% of the estimated area of native forest that existed in 1996.

The implementation of the Policy can be problematic for the FPA as thresholds set in previous versions of the Policy have been removed. This often leads to protracted negotiations with land owners about affording reasonable protection to the environment while clearing trees for land use conversion.

Self-regulation

The FPA reports that, in accordance with s. 4E(1)(a) of the Act, a high level of self-regulation has been achieved on public and private land that is subject to operations. The NIPF sector generally has a reduced capacity for self-regulation compared with forestry companies. The FPA is working towards better communications, training and education for this sector and the contractors that service it.

The FPA is pleased to report that high levels of compliance with FPPs have been sustained across all applicant groups. The FPA will continue to pursue applicants who have not lodged final compliance reports by the due date based on assessment of risk.

There are 158 authorised FPOs with 142 in the non-government sector. 95 FPOs have received delegation from the FPA to consider applications to certify FPPs.

Funding

In accordance with s. 4E(1)(a) of the Act, the FPA reports that the forest practices system satisfied the principle of self-funding in 2019–20.

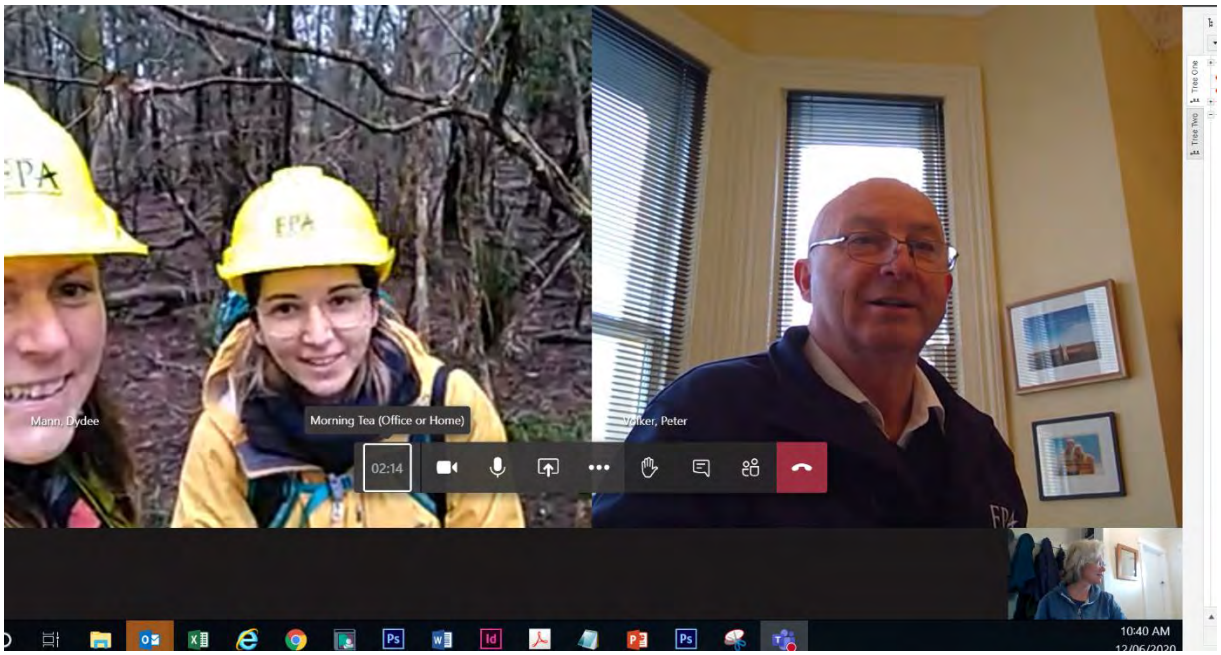
The independent regulatory functions of the FPA in 2019–20 were funded by the income received under s. 44 of the Act.

John Ramsay
Chair, Board of the Forest Practices Authority

Report of the Chief Forest Practices Officer

The 2019–20 year has presented challenges for the forest practices system and for society in general.

The impact of COVID-19 was dealt with early and swiftly by the FPA with staff transitioning to working from home as soon as it became apparent that the government would be able to support such arrangements. The forest industry was classified as an essential industry and so our work continued as normal, albeit in somewhat different circumstances.



Screenshot of Biodiversity Program Ecologists Dydee Mann and Angela Gardner (left) joining in a COVID-19 morning tea on Microsoft Teams from their forest field trip.

The cooperative nature of the forest practices system came to the fore and the fact that delegated and decentralised approvals processes for forest practices plans (FPPs) and other forest practices matters are in place enabled industry to continue without interruption. This demonstrates the robustness of the forest practices system in changing social and economic circumstances.

The *Forest Practices Act 1985* was amended by parliament, coming into force on 7 October 2019. It was pleasing to hear the broad support for the forest practices system in speeches by all political parties and parliamentarians. The amendment included a provision for a *Code of Conduct for Forest Practices Officers* to be prepared by the Board which must be laid before each House of Parliament and may be disallowed. This is the first time the Tasmanian Parliament has had such a provision for such a code.

The amendment of the *Forest Practices Code* continued throughout the year. Comments from the public were received and reviewed by working groups. The Code is supported by planning tools and documents which are specifically referred to in the Code. These supporting documents can be amended from time to time as new knowledge becomes available. The Code is designed to provide prescriptions for forest practices at the operational forest stand scale. The supporting documents provide guidance on managing threatened species, soil and water at the landscape scale which can be incorporated into FPPs. The amended Code was released on 6 October 2020 and will come into force on 1 January 2021.

A key achievement of the FPA is the assistance for Papua New Guinea to develop a soil carbon map for the entire nation. As far as I know, this is the first time such a map has been developed in the world. The FAO UN-REDD project was led by Dr Peter McIntosh, Manager of Earth Sciences and Cultural Heritage, with assistance of staff from the PNG Forest Authority and additional funding provided through the Crawford Fund. Further information can be found in this annual report.

The FPA held a course for FPOs involved in development and management of quarries for forestry purposes. The EPA and MRT provided input to the course. As a result, some amendments to the Code were suggested. The FPA also increased its focus on forest quarries during the annual compliance audit program.

Left: Allan Lee and David Tucker, consultants presenting the Quarry FPP Training Course. Right: the course participants and presenters.

After a review of the social and economic impacts of stop-work provisions for forest contractors, the FPA reviewed the response plan for swift parrot sightings in active forest operations. The aim is to respond with specialist advice in a timely manner where swift parrots are sighted within or near active operations during the breeding season.

It is pleasing to note the continued high level of compliance with the forest practices system by the major stakeholders in the forest industry, including Sustainable Timber Tasmania (STT) and forest companies. Although the non-industrial private forest sector has generally high levels of compliance, there is still room for improvement. The FPA relies on Forest Practices Officers who operate in this sector and the good will of landowners to implement and monitor FPPs to achieve satisfactory outcomes and ongoing healthy forests on private land.

The FPA continues to grapple with matters that are on the periphery of the forest practices system including tree clearing for agricultural and other purposes such as dams and boundary fences.

Land and tree clearing is of particular concern to the FPA and takes a considerable amount of time to resolve. The PNFE Policy was amended in 2017 to bring to an end broad scale clearing and conversion, defined as 20 ha per property over a five-year period. An exemption for up to 40 ha per property per year was included where it is for agricultural purposes and all thresholds contained in previous versions of the Policy were removed. The FPA monitors the extent of forest communities compared with their extent in 1996. The total area of forest that has been cleared since 1996 amounts to 159 408 ha (5%) of an original area of 3.026 M ha. In the Woolnorth and Ben Lomond bioregions, where there is considerable pressure for expansion of agricultural activities, the loss of RFA forest communities' area since 1996 is 12% and 10% respectively.

The Act defines trees as any woody vegetation native to Tasmania with a potential to grow to five metres in height or more. In the case of a vegetation type known as King Island scrub this can be problematic, as some areas are on poor soils and are not capable of reaching five metres in height whereas other areas have this potential even after they have been damaged by fire. King Island scrub also provides habitat for two of Australia's most threatened birds, the King Island brown thornbill and King Island scrubtit. The FPA has been working with other government agencies, King Island Council and the local community to resolve this issue.

The FPA initiated an Interagency Working Group on threatened species and communities which aims at taking a whole of government approach and to improve communication across various agencies.

The FPA commenced work on development of learning materials for the national competency unit *FWPCOR2203 Follow environmental care procedures*. This is designed to support forest workers who are required to follow environmental work practices in Tasmania's forest industry.

Forest contractors TP Bennett and Sons allowed the FPA to take photos to illustrate the environmental care learning materials.

The CFPO is responsible for administration of the FPA and some key achievements in this area included:

- review of the strategic plan for Board approval
- functional analysis of the budget with a three-year outlook
- external audit of Workplace Health, Safety and Wellbeing was completed with some minor matters to be addressed
- review of the procedures for aerial checking of eagle nests was undertaken by an external company with expertise in aviation safety. This resulted in a recommendation for use of helicopters for this activity. Protocols were developed for DPIPWE approval to allow this to happen.

- cooperating with the Tasmanian Audit office as they conducted an audit of the FPA's financial management
- commencing a review of business systems
- working with DSG IT department to improve cyber-security
- development of COVID-19 safety plans for staff and FPA facilities including working from home provisions.

The administration and activities of the FPA are supported by dedicated staff. The high quality of their work is reflected in this annual report.

During the year the Compliance Program Manager, Mr Stephen Walker, resigned. I thank Stephen for his diligent approach to compliance matters and the improvements he brought to the FPA's Compliance Program particularly in auditing and case management. Michael Rawlings also resigned after a couple of years in the Compliance Program. I thank him for his contribution particularly working with forest contractors to improve environmental standards. The FPA is fortunate to have recruited Mr Aidan Flanagan as Compliance Manager. Aidan has previously worked with the FPA and more recently has been working in south-east Asia assisting nations to increase controls on illegal timber and wildlife trade. Anne Chuter was appointed Biodiversity Program Manager in October 2019, after around 16 years as an Ecologist in the Biodiversity Program.

The FPA continues to provide a valuable service to the Tasmanian community and the forestry sector in particular. It is supported by world-class research and application of the latest scientific and technical knowledge in forest operations as far as is reasonably practical in a co-regulatory model. The forest practices system continues to meet its requirements to achieve sustainable forest management with due care for the environment and taking into account social, economic and environmental outcomes.

Peter Volker
Chief Forest Practices Officer

FPA Earth Scientists and Queensland-based researchers coring at Nicholas Swamp, north-eastern Tasmania, using a motorised percussion apparatus. Cores like this are valuable for their pollen record, which reveals what vegetation associations dominated the marsh and the surrounding area over thousands of years.

1 Independent regulation functions report

1.1 *Forest Practices Act 1985*

Amendments to the Act were proclaimed on 7 October 2019. The Forest Practices Regulations 2017 were not altered.

1.2 *Forest Practices Code*

The issue, purpose, amendment and objection to amendment of the Code is dealt with in Part IV of the Act.

The Code is designed to provide practical prescriptions that can be implemented in the field when people are conducting forest practices including: building roads and bridges; operating quarries associated with forest practices; harvesting timber; conservation of natural and cultural values; and establishing and maintaining forests.

Previous versions of the Code have been issued in 1987, 1993 and 2000. The Code is legally enforceable under the Act for both public and private forests. The current version of the Code took effect from 1 July 2015. That version incorporated a 'Guiding Policy for the Operation of the Forest Practices Code', but no changes were made to operational prescriptions within the body of the Code.

A review of the Code commenced in 2018. A Code Review Coordinator was engaged to oversee the review process under guidance of the CFPO. A steering committee was established consisting of the FPA and FPAC Chairs, Chief Forest Practices Officer and Code Review Co-ordinator. Working groups, drawn from a range of stakeholders, were established to review each section of the Code with a view to making the Code more contemporary. The statutory public comment period took place in the second half of 2019. After consideration of comments and input from the statutory stakeholders (STT, PFT and FPAC) the amended Code was approved by the FPA Board. It was launched on 6 October 2020 to come into force on 1 January 2021.

The Code can be downloaded from the FPA website.

1.3 Forest practices plans

Certified FPPs are required for all forest practices on public and private land, other than for exemptions prescribed in the Forest Practices Regulations 2017 which are available from the Tasmanian Legislation website. The publication, '*A guide to planning approvals for forestry in Tasmania'* (available on the FPA website) provides further information on the regulations and the process of preparing an FPP.

FPPs provide a definition and summary of the operation. They also include prescriptions for the management of natural and cultural values, planned harvest systems and reforestation.

Most forest owners engage a planner to prepare their FPP, identifying the natural and cultural values that may require management in the forest operation. The FPA's planning tools and specialists provide advice which sometimes involves field visits and liaison with other experts. The application

for an FPP is made to the FPA, and may be certified, amended or refused where the proposed operations do not comply with the Code. The FPA has delegated powers to some FPOs to consider applications for certification of FPPs.

Forestry operations may also need approval from local government, if required under the relevant planning scheme if the land is not a private timber reserve (PTR) or PTPZ land.

1.3.1 Details of forest practices plans certified in 2019–20

Table 1.3.1 Number of FPPs certified in 2019–20 by type and applicant for public land[1] and private property

	Quarry plans		Roading plans		Harvesting plans (including reforestation where appropriate)				Afforestation plans on cleared land			
					Native forest		Plantations					
Applicant	**Public**	**Private**	**Public**	**Private**	**Public**	**Private**	**Public**	**Private**	**Public**	**Private**	**Total**	**%**
Crown forests[2]	0	0	0	0	0	0	2	0	0	0	**2**	**0.4**
Non-industrial private forests (NIPF)[3]	2	4	0	14	4	22	12	86	2	2	**148**	**26.9**
Industrial forests[4]	1	1	5	27	0	12	68	104	3	2	**223**	**40.5**
Sustainable Timber Tasmania[5]	1	0	65	1	67	0	43	1	0	0	**178**	**32.3**
Total	**4**	**5**	**70**	**42**	**71**	**34**	**125**	**191**	**5**	**4**	**551**	
%	**0.7**	**0.9**	**12.7**	**7.6**	**12.9**	**6.2**	**22.7**	**34.7**	**0.9**	**0.7**		

1 Public land includes PTPZ land (known as State forest up to November 2013).

2 Crown forests includes Future Potential Production Forest and unallocated Crown Land; schools, GBE's etc.

3 Non-industrial private forests (NIPF), identified in previous reports as Independent.

4 Includes forestry rights holders on PTPZ land.

5 Applies to Permanent Timber Production Zone (PTPZ) land excluding land managed by forestry rights holders.

Left: There were nine quarry FPPs during the reporting period. The FPA has focused this year on training to prepare quarry FPPs (pictured) and compliance of quarry FPPs with the forest practices system.

Table 1.3.2 Native forests: area (ha) of operations covered by FPPs certified in 2019–20 by harvesting method, future land use and tenure

Tenure	Partial logging[1]	Native forest restoration on cleared land	Clearfelling followed by:				Total[3]
			Regeneration by seeding	Plantation		Non-forest land use[2,3]	
				Eucalypt	Pine		
Public land	4,873	0	2,348	2	0	82	**7,306**
Private land	2,241	0	56	2	0	270	**2,569**
Total	**7,114**	**0**	**2,404**	**4**	**0**	**352**	**9,874**

1 Thinning, retention of advanced growth, aggregated retention, seed trees, or shelterwood, group of single tree selection.

2 Clearing on public land included clearing for quarries (9.8 ha) and road construction (72.7 ha). Clearing on private land included clearing for firewood (30.1 ha), conversion to agriculture/irrigation infrastructure (236.9 ha) and roads (2.9 ha).

3 Losses resulting from dam works permits issued under the *Water Management Act 1999* (34.9 ha of native forest in 2019–20) are not covered by FPPs and are not therefore included in this table, but are included under the data for the Permanent Native Forest Estate section 1.9 and Appendix 4 of this report.

Table 1.3.3 Plantations: area (ha) of operations covered by FPPs certified in 2019–20 by harvesting method, future land use and tenure

Tenure	Thinning	Clearfelling followed by:				Total [2]
		Plantation			New plantations on cleared land	
		Plantation	Native forest [1]	Non-forest land use [2]		
Public land	2,439	4,548	30	343	0	**7,360**
Private land	2,134	7,617	296	3,193	115	**13,356**
Total	**4,573**	**12,164**	**326**	**3,536**	**116**	**20,716**

1 Largely form the rehabilitation of streamside reserves in pine plantations which were established prior to the Code.

2 Losses resulting from dam works permits issued under the *Water Management Act 1999* (5.9 ha of plantation in 2019–20) are not covered by FPPs and are not therefore included in this table.

Clearing plantation for non-forest land use continues to be a significant activity.

Figure 1.3.1 Area of forest by various treatments from 2010-2020

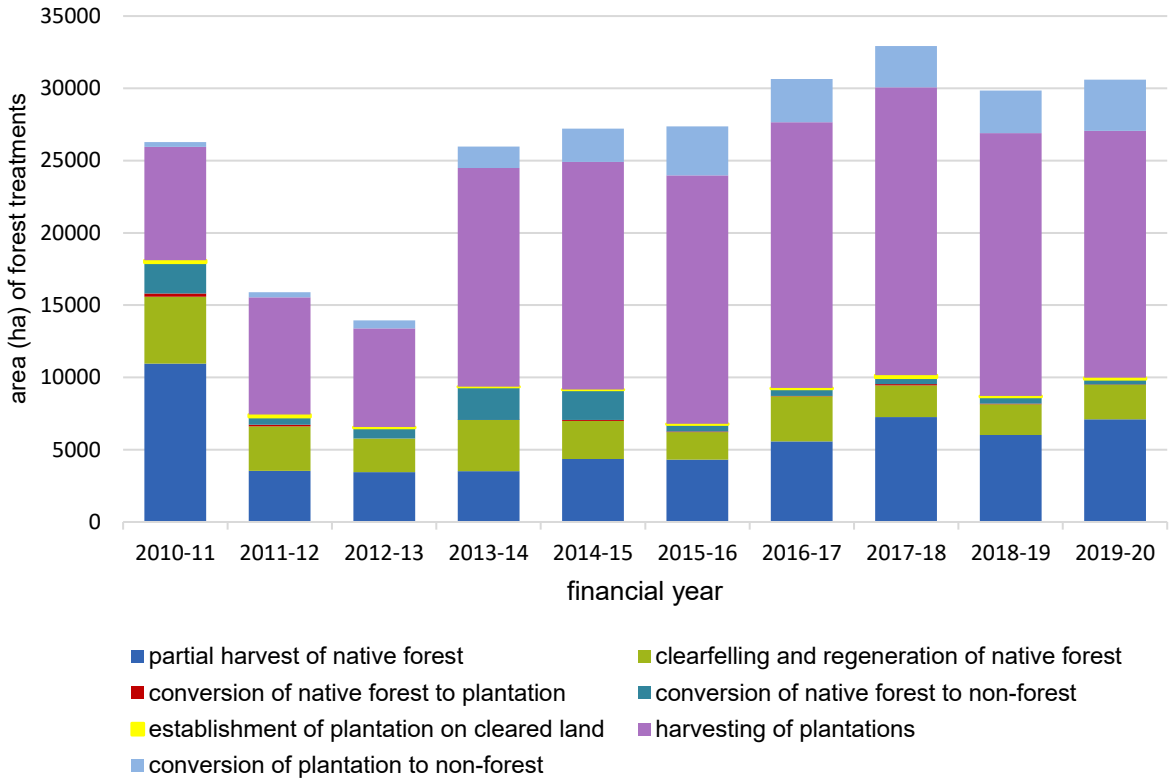


Figure 1.3.1 Area of forest by various treatments from 2010–2020

1.3.2 Treefern harvesting

The harvesting of treeferns (*Dicksonia antarctica*) is regulated under the Act. Treefern harvesting for export must be conducted in accordance with the Treefern Management Plan which has been approved by the Commonwealth.

Under the Act, all treeferns must have tags issued by the FPA affixed to their stems prior to removal from a harvesting area. These tags must remain on the stems at all times to ensure that the origin of treeferns can be tracked to approved harvesting areas. Table 1.3.4 provides details on the harvesting of treeferns in 2018–19 and 2019–20. Revenue from the sale of treefern tags (see section 4 of this report) is used to fund regulatory activities and research into the long-term sustainability of treefern harvesting.

Table 1.3.4 The number of certified FPPs which included treefern harvesting prescriptions and the number of treefern tags issued

	Number of certified FPPs including treefern harvesting prescription		Number of treefern tags issued[1]	
Financial year	**2018–19**	**2019–20**	**2018–19[2]**	**2019–20[3]**
Number	17	14	14 656	20 420

1 Treefern tags are issued in advance of harvesting

2 Made up of 2417 tags issued for stems less than 30 cm length and 12 239 issued for stems greater than 30 cm length.

3 Made up of 7040 tags issued for stems less than 30 cm length and 13 380 issued for stems greater than 30 cm length.

1.4 Three-year plans

The Act (Part III, Division 2) provides for lodgement with the FPA of three-year plans for operations showing the location of each operation, the volume to be harvested, the carting routes to be used and reforestation measures that are proposed. Such plans are required from companies that have harvested, or caused to be harvested, more than 100 000 tonnes of timber in the preceding year. Summaries of the plans are sent to relevant local government authorities as a basis for consultation on the location of planned harvesting.

The FPA can report that the requirement to lodge three-year plans was met in 2019–20. Three-year plans have been lodged with the FPA by STT, PF Olsen, Forico, Norske Skog (Australia), SFM, Midway Tasmania, AKS Forest Management and Timberlands Pacific.

Industry representatives convene regional meetings with representatives of local government each autumn to facilitate discussion regarding cartage routes and expected tonnages, and any other matters of concern to local government. The attendance at these meetings by local government has been declining over a number of years but the FPA is seeking to invigorate the three-year planning process. The CFPO has requested three-year plan volume and transport information be provided in digital and GIS formats respectively. This will enable the FPA to better monitor catchment level impacts of forest practices and to consolidate road transport volumes. It is hoped this information will prove more useful to Councils. Regular communication by forest companies and STT with Councils on three-year planning matters is still encouraged.

1.5 Statutory reports

1.5.1 *State of the forests Tasmania* report

The FPA is required under s. 4Z of the Act to produce a report every five years on the state of the forests. The FPA, in collaboration with other governmental agencies, compiles a report on the sustainability indicators that have been agreed between the Tasmanian and Australian governments under the Montreal Process Criteria and Indicators Framework. This report forms the basis of the *State of the forests Tasmania* report. The latest report was completed in 2017 and covers the period 2011–16. It was tabled in both houses of the Tasmanian Parliament in November 2017. The report and the illustrated booklet are available from the FPA website. The next report is due in 2022.

1.5.2 Forest practices report

The FPA is required under s. 4ZA of the Act to review the operation of the forest practices system, including the provisions and operation of the Code, and to provide a report every five years. The last report was published in the FPA's annual report for 2016–17 which was tabled in both houses of the Tasmanian Parliament in November 2017. The next report is due in 2022.

1.6 Private timber reserves

PTRs were created by the Tasmanian 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 Act. PTR applications during 2019–20 are summarised below.

Table 1.6.1 Number of PTRs 2019–20, and progressive total

	1 July 2019 – 30 June 2020	Progressive total to 30 June 2020[1]
Applications approved by FPA	7	2092
PTRs revoked	49	520

1 The progressive total contains adjustments to figures in previous periods. Progressive totals are adjusted primarily because original applications to declare areas as PTRs have in some cases been followed in later years by an application to revoke part or all of the area declared as a PTR.

The area of PTRs in the progressive total was 436 817 ha, a decrease of 2290 ha from 2018–19**.** Revocations of PTRs exceeded the number of new approvals, continuing the trend that first emerged in 2012, primarily due to landowners deciding to convert plantation land on previously cleared land back to non-forestry use.

During the five years 2015–20, 23 000 ha of PTRs were revoked across Tasmania (Table 1.6.2).

Table 1.6.2 Area of PTRs revoked in each region in the five years 2015–16 to 2019–20

Region	Area (ha)	%
North-east	9900	43
South	9300	40
North-west	3800	17

1.7 Vegetation management agreements

Under s. 4(g)(ii) of the Forest Practices Regulations 2017, an FPP is not required for:

> *'the harvesting of timber or the clearing of trees, or the clearance and conversion of a threatened native vegetation community, with the consent of the owner of the land, carried out in accordance with –*
>
> *(ii) a vegetation management agreement of a kind that the Authority has approved in writing for the purposes of this paragraph;'*

A vegetation management agreement (VMA) is defined in the regulations as *'an agreement that an owner of land enters into with an instrumentality or agency of the Crown for the purposes of managing native vegetation on that land.'*

The FPA recognised a total of 12 current VMAs in the 2019–20 year. The majority of these VMAs cover weed and pine wilding control on public and private land, and the remainder are for other activities such as tree clearing for walking tracks in reserved areas, managing offset areas and small-scale clearing associated with hydroelectric stations.

1.8 Compliance Program

The FPA's Compliance Program undertakes rigorous and independent monitoring and assessments of compliance under a risk-based/continuous improvement framework that includes:

1. **Field observations and monitoring assessments** to determine the effectiveness of standards and prescriptions applied in forest operations. FPOs are trained in this area.
2. **Monitoring for compliance** to assess the level of compliance against specified standards; often called a Compliance Audit. It is primarily designed to assess the level of compliance achieved against Code standards under a certified FPP. Minor issues of non-compliance are usually addressed as soon as they are observed through corrective actions. Serious non-compliance may result in a referral for investigation.
3. **Complaints** that are received by the FPA are assessed and actioned according to the level and integrity of information received from a number of sources including FPOs, the public, other government regulatory agencies and self-reporting by people undertaking forest practices.
4. **Investigations** to assess reported potential breaches of the Act. These systematically gather admissible evidence for any subsequent action that can include criminal, administrative or disciplinary sanctions. Investigations can also prevent or deter breaches by increasing community awareness that there is active regulatory oversight and a capacity to report. The term investigation can also include intelligence processes, such as assessments of aerial photography and satellite imagery, which directly support the gathering of admissible evidence.
5. **Enforcement** requires actions to prevent, repair or penalise for environmental harm and may include the issuing of requests or demands to make good any damage (section 41 of the Act), applying a prescribed fine (section 47B of the Act) or a referral to the Courts for prosecution (section 47 of the Act).

The policy and procedures that the FPA employs when identifying poor practices or investigating alleged breaches of the Act recognises that enforcement does not always require the prosecution of a breach in Court, rather it takes place in a continuum where a number of options are available and applied according to the FPA investigation and enforcement framework (Figure 1.8.1).

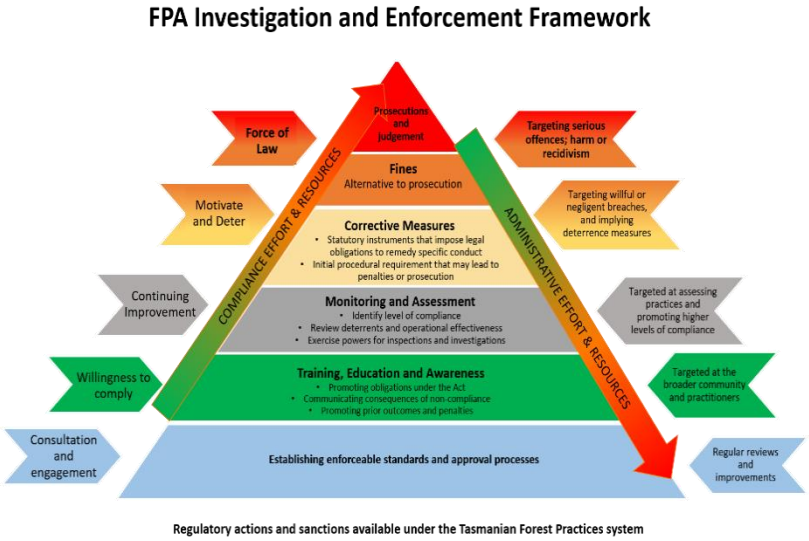


Figure 1.8.1 FPA investigation and enforcement framework

1.8.1 Compliance reports

The Act requires a compliance report to be lodged with the FPA within 30 days of the completion of each discrete phase of operation prescribed within an FPP and a final compliance report to be lodged with the FPA within 30 days of the expiry of the plan. These reports must be lodged by the person who applied for the plan (i.e. the Applicant). The FPA requires these reports to be verified by an FPO and to provide statements within one of the following categories:

- FPP fully complied with:
    - Fully complied with – this means that all provisions of the plan were fully complied with.
- FPP not fully complied with:
    - No further action recommended – generally the operation was changed in a manner that did not result in any long-term environmental harm; e.g. the stocking standard in a plantation was below the target specified in the FPP, but still adequate to meet stocking standards.
    - Matter resolved through corrective action – generally the FPO undertaking the compliance check has detected non-compliance and has issued a notice under the Act to require corrective action to ensure compliance with the plan, e.g. improved regeneration treatments or stabilising disused access tracks. Follow-up monitoring is undertaken by the FPO and a final report provided to the FPA.
    - Further investigation required – generally a non-compliance issue has occurred that requires further investigation and action by the FPA, e.g. environmental harm has occurred or a required corrective action has not been undertaken.
- FPP operations did not commence.

If compliance reports are not lodged on time, the FPA may issue the applicant of the plan with a notice under s. 41 of the Act to require the lodgement of the report. Failure to comply with a notice under the Act can result in the FPA undertaking compliance checks at a cost to the applicant or legal proceedings, consistent with the FPA's *Investigation and enforcement protocols,* which can be downloaded from the FPA website.

For the period of reporting, 1192 reports from 1311 FPPs were lodged, of which 37 FPPs had one or more non-compliant phases, with only two FPPs requiring corrective action or further investigation (Table 1.8.1).

Table 1.8.1 Final compliance reports due for lodgement with the FPA as at 30 June 2020[1]

Applicant	Reports Due			Compliance (for reports lodged)				
						Not fully complied with		
	Lodged	Not Lodged	Total	No Activity	Fully Complied With	No Further Action	Corrective Action	Further Investigation
Crown forests[2]	9	0	**9**	0	9	0	0	0
Non-industrial private forests (NIPF)[3]	92	76	**168**	12	74	5	0	1
Industrial private forests[4]	636	43	**679**	24	598	14	0	0
Sustainable Timbers Tasmania[5]	455	0	**455**	27	411	16	0	1
Total	**1192**	**119**	**1311**	**63**	**1092**	**35**	**0**	**2**

1 Reported as at 30 June 2020 for FPPs expired between 1 June 2019 and 30 May 2020 to allow for 30-day notification period allowed by the Act.
2 Crown forests includes Future Potential Production Forest and unallocated Crown Land; schools, Government Business Enterprises etc.
3 Non-industrial private forests (NIPF), identified in previous reports as Independent.
4 Includes forestry rights holders on Permanent Timber Production Zone (PTPZ) land.
5 Applies to land excluding PRPZ land managed by forestry rights holders.

The FPA is pleased to report that high levels of compliance with FPPs have been sustained across all applicant groups. The FPA will continue to pursue applicants who have not lodged final compliance reports by the due date based on assessment of risk. Ensuring final compliance reports are returned will remain a priority for the FPA.

1.8.2 Monitoring for compliance

Monitoring of compliance is carried out at three levels under the forest practices system:

- Routine monitoring of operations by FPOs trained and appointed by the FPA and employed by forest managers. This level of monitoring is often undertaken as part of formal environmental management systems and forest certification, which also involve third-party audits.
- Formal reporting on compliance under s. 25A of the Act (see section 1.7.1 below). This is required for all FPPs and is usually done by qualified FPOs.
- Independent monitoring of a representative sample of FPPs in accordance with s. 4E(1)(b) of the Act (see section 1.7.2 below). This is performed annually by the FPA.

The FPA's *Monitoring and assessment protocols* and *Investigation and enforcement protocols* can be found on the FPA website.

1.8.3 Independent assessment of forest practices plans

The annual assessment program is the means by which the FPA meets its statutory obligations under s. 4E(1)(b) of the Act which states that the FPA must, at least once each financial year, '*assess the implementation and effectiveness of a representative sample of forest practices plans*'.

To this end, the FPA conducts systematic assessments of FPPs to evaluate performance against the requirements of the Act and the Code.

The FPA's *Monitoring and assessment protocols* can be viewed on the FPA website. The protocols have been developed in line with the Australian Standard AS/NZS ISO 19011:2003: *Guidelines for*

quality and/or environmental management systems auditing. In line with ISO 19011, the protocols are scheduled to be reviewed in 2020–21 to identify areas of improvement.

The formal assessment process is based on a sample of certified FPPs selected from the FPA's FPP database. COVID-19 restrictions resulted in fewer assessments being undertaken compared to previous years as the program did not commence until March 2020. The 2019–20 assessment program selected 29 certified FPPs at various stages of completion in the period prior to 1 July 2019, covering:

- Forest planning and operational practices under the Act, including roading, quarrying, harvesting of timber, reforestation and the clearing of trees.
- FPPs prepared by a range of FPOs who had certified plans during the nominated period; a total of 20 certifying FPOs were assessed during the 2019–20 program.
- Quarrying operations undertaken on Permanent Timber Production Zone land (PTPZ), Future Potential Production Forest (FPPF), and industrial private forest (IPF) land tenures (11 FPPs).
- Clearing and harvest operations (18 FPPs) comprising:
    - Native forest clearing (clearfall to remain cleared) undertaken by NIPF applicants operating on NIPF land tenure (13 FPPs).
    - Selective harvest undertaken in threatened native vegetation communities by NIPF applicants operating on NIPF land tenure (3 FPPs).
    - Softwood plantation harvest and reforestation undertaken on NIPF land tenure (2 FPPs).

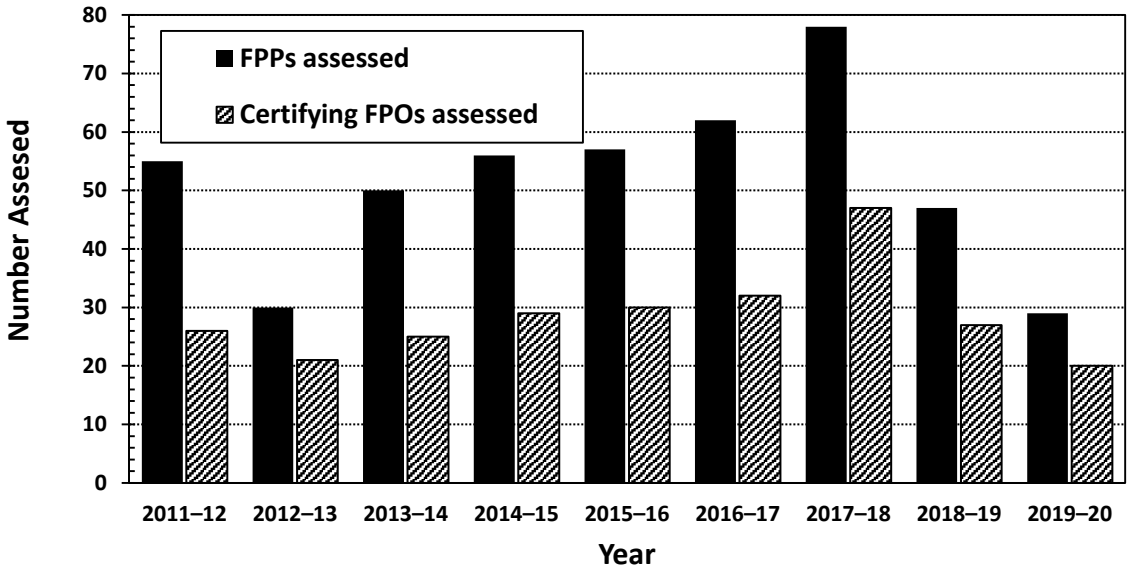


Figure 1.8.2 Numbers of FPPs and Certifying FPOs assessed (2011–12 to 2019–20)

Assessments determine the quality of planning, implementation and reporting against prescriptions within each FPP and the Code.

The 2019–20 assessments were based on standard questions concerning 11 categories covering 87 standards defined in the Code. Assessment was based on a performance rating which included the percentage of FPP questions rated as (3) sound, (2) below sound or (1) unacceptable (Appendix 3). The percentage of questions rated 'sound' provides an effective performance rating against the standards set by the FPA.

Potential breaches of the Act and/or the Code identified through the assessment program are independently investigated by the FPA and subject to enforcement actions as detailed in section 1.10 of this report.

Twelve assessors were used during the 2019–20 program:

- Mr Stephen Walker, Consultant FPA Forest Practices Advisor, a warranted FPO, a certified Lead Environmental Auditor and a Registered Professional Forester, with over 30 years' experience in forest management and forest assessment in the Asia-Pacific Region. Mr Walker had primary responsibility for ensuring the efficient and effective conduct and conclusion of the annual program, in accordance with the assessment scope and plan as developed under the FPA's *Monitoring and assessment protocols*.
- Mr James Fergusson, FPA Forest Practices Advisor, is a warranted FPO with over 30 years' experience in forestry in Tasmania, including significant expertise in the planning and certification of FPPs.
- Independent forestry consultants (warranted FPOs) with experience in forestry in Tasmania, including planning, certification, supervision and assessment:
  - Mr Justin Baily
  - Ms Janet Morley
  - Mr Rob Scott
  - Mr David Tucker.
- FPA managers and specialist staff:
  - Mr Aidan Flanagan, Manager, Compliance
  - Ms Anne Chuter, Manager, Biodiversity
  - Dr Phil Bell, Consultant Ecologist, Biodiversity
  - Mr Stephen Casey, Consultant Ecologist, Biodiversity
  - Dr Perpetua Turner, Research Biologist, Biodiversity
  - Dr Adrian Slee, Scientific Officer, Earth Sciences and Cultural Heritage.

1.8.3.1 Summary of results

A total of 1198 individual forest planning and operations questions were assessed, distributed as shown in Figure 1.8.3. Coverage of the various facets of operations assessed across tenures (and operation types) is provided in Table 1.8.2.

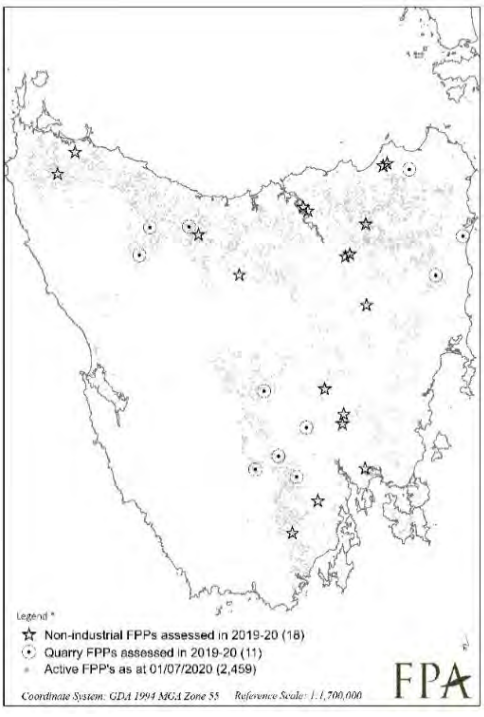


Figure 1.8.3 Distribution of sampled FPPs (2019–20) against FPPs current as at 1 July 2019

Note: Icons and grey dots are indicative of FPP location rather than the area covered by the FPP.

Table 1.8.2 Coverage of the 2019–20 FPP assessments across land tenure (and operation type)

	Land Tenure (and operation type)				
	FPPF land[5] (Quarrying)	**PTPZ land[6] (Quarrying)**	**IPF land[7] (Quarrying)**	**NIPF land[8] (Harvesting/Clearing)**	**Total**
No. of assessments	2	4	5	18	**29**
No. of certifying FPOs assessed[1]	2	3	2	13	**20**
Assessed activity[2]					
Quarrying – undertaken for forestry purposes	2	4	5		**11**
Native forest – selective harvest in TNVC				3	**3**
Softwood plantation – clearfell and reforestation				2	**2**
Native forest – clearfell to remain cleared				13	**13**
Forest type					
Softwood plantation		2	2	2	**6**
Native forest	2	2	3	16	**23**
Reforestation type					
Softwood plantation				2	**2**
Native forest	1[3]			3	**4**
Conversion – non-forest	1[4]	4	5	13	**23**

1 Two FPOs certified three FPPs, five FPOs certified two FPPs; 13 FPOs certified one FPP (Total FPOs =20; Total FPPs = 29).

2 The primary activity assessed by the FPA during the assessments.

3 Historic quarry rehabilitated during lifetime of FPP.

4 Existing quarry approved by Department of Primary Industries, Parks, Water and Environment (DPIPWE) as land manager.

5 Future Potential Production Forest.

6 Permanent Timber Production Zone (PTPZ) land excluding land managed by forestry rights holders.

7 Industrial private forests, includes forestry rights holders on PTPZ land.

8 Non-industrial private forests, identified in previous reports as Independent.

The performance ratings achieved in 2019–20, broken up by each assessment category (and operation types) are summarised in Table 1.8.3, with performance by individual question assessment rating shown in Appendix 3. The performance ratings by operation type assessed in 2019–20 are summarised in Table 1.8.4.

Table 1.8.3 Performance rating (%) by assessment category for FPPs assessed in 2019–20 by land tenure and operation type

Assessment category	Performance rating (%)				
	FPPF land (n=2) (Quarrying)	PTPZ land (n=4) (Quarrying)	IPF land (n=5) (Quarrying)	NIPF land (n=18) (Harvesting/Clearing)	Total (n=29)
Procedural issues	64.7	58.3	74.5	76.3	72.9
Roading (including quarrying)	57.1	58.3	60.0	86.3	77.6
Harvesting				88.0	88.0
Reforestation				88.9	88.9
Soils	100.0	75.0	90.0	98.1	94.7
Water quality and flows	100.0	83.3	100.0	96.8	96.1
Biodiversity	91.7	84.2	70.4	84.1	82.7
Landscape	83.3	92.3	100.0	93.4	93.4
Cultural heritage	87.5	78.6	66.7	73.1	74.1
Geoscience	100.0	100.0	100.0	93.1	94.7
Fuels, rubbish and emissions	50.0	25.0	40.0	88.2	67.9
Overall	**79.0**	**72.0**	**76.7**	**85.2**	**82.6**

Table 1.8.4 Performance rating (%) by assessment category for FPPs assessed in 2019–20 by operation type

Assessment category	Performance rating (%)				
	Quarrying for forestry purposes (n=11)	Softwood clearfell and reforestation (n=2)	Selective harvest in TNVC (n=3)	Clearfall to remain cleared in native forest (n=13)	Total (n=29)
Procedural issues	67.0	89.5	83.3	72.7	72.9
Roading (including quarrying)	58.8	90.9	100.0	82.7	77.6
Harvesting		84.6	86.5	89.0	88.0
Reforestation		88.9	90.9	87.5	88.9
Soils	85.7	100.0	100.0	97.4	94.7
Water quality and flows	95.0	100.0	83.3	100.0	96.1
Biodiversity	79.3	85.7	75.0	86.0	82.7
Landscape	93.3	100.0	100.0	90.7	93.4
Cultural heritage	76.5	90.0	75.0	69.2	74.1
Geoscience	100.0	100.0	100.0	89.7	94.7
Fuels, rubbish and emissions	36.4	100.0	66.7	92.3	67.9
Overall	**75.4**	**91.3**	**86.2**	**83.9**	**82.6**

1.8.3.2 Comments on standards achieved

The overall performance rating achieved for 2019–20 across 29 FPPs (82.6%) was below that achieved in 2018–19 across 47 FPPs (94.5%). This is attributed to a change in sampling approach between years, with the focus of the 2019–20 assessment program being either operations that had not been comprehensively assessed in the last decade (quarrying) or where results in recent years were consistently below that expected by the FPA (operations performed by NIPF applicants on NIPF land) and required further follow up.

The 83.9% performance rating achieved for clearing and conversion to non-forestry land use operations in native forest (n=13) was below that expected by the FPA. This is attributed to inadequate supervision of these operations by applicants who lack experience in managing forest practices.

The 75.4% performance rating achieved across all tenures for quarrying (n=11) has highlighted some issues of compliance with FPPs. Managers of forest quarries authorised under FPPs have recognised the need to improve management of their facilities. Quarries will continue to be a focus of audits in future years.

The assessments completed for selective harvest in TNVC (n=3) and softwood plantation harvest and reforestation (n=2) were considered insufficient from which to draw firm conclusions.

Under s. 4E(1)(b) of the Act, the FPA reports that the implementation and effectiveness of FPPs across assessment categories and operation types is satisfactory, but with considerable scope for improvement in NIPF and quarry management.

For 'clearfall to remain cleared' operations being undertaken in native forests by NIPF applicants operating on private land, activities identified as requiring improvement were:

- planning standards relating to procedural issues, biodiversity and cultural heritage
- FPP certification processes
- supervision and monitoring of operations undertaken by FPOs
- procedural issues, roading and harvesting activities under the control of applicants.

For quarrying operations across all tenures, procedural matters identified as requiring improvement were the:

- effective marking of quarry boundaries
- systematic completion of special value assessments to inform the inclusion of appropriate prescriptions within FPPs
- preparation and periodic update of FPPs
- periodic monitoring/reporting of quarry performance.

Operational quarrying matters identified as requiring improvement, were the:

- design and construction of water quality and control measures
- rehabilitation and revegetation of quarries
- rubbish management and quarry hygiene practices.

Arising from the 29 FPP assessments undertaken in 2019–20, four notices were issued to applicants under s.41(1) of the Act requesting corrective action be undertaken, or requesting the cessation of forest practices until identified matters could be further reviewed. Potential breaches of the Act by applicants arising from the assessment of three FPPs were referred to the FPA's Compliance Program for follow up action.

During 2020–21, the FPA will ensure continual improvement in performance outcomes by focusing on transitioning from the traditional representative sampling process to a more risk-based and responsive framework. This will incorporate a three-tiered approach to:

- improve planning by selecting recently certified FPPs to check for procedural issues and poorly worded FPPs
- identify high risk activities at the planning stage for subsequent compliance checks
- maintain representative sampling to monitor general trends.

These changes are designed to be more focused on assessments rather than monitoring, to assess real-time operations rather than legacy/historical activities, and to maintain a capacity to undertake targeted assessments that reflect specific priorities. The 2020–21 Audit Compliance Program will be adapted to develop a framework for use in 2021–22.

David Tucker (left) and Stephen Walker (right) conducting a compliance assessment at Gold Creek Quarry with Sustainable Timber Tasmania Forest Practices Officers Colin Duggan and Craig Wilson.

1.9 Monitoring of the permanent native forest estate

The FPA is required to implement and report on the maintenance of the permanent native forest estate under s. 4C of the Act and following the current PNFE Policy. The most recent version of the PNFE Policy came into force on 1 July 2017. The following comments relate to the implementation of this policy.

Note that the FPA does not regulate, monitor or keep records of clearance and conversion of native forest under the *Land Use Planning and Approvals Act 1993* or *the Environmental Management and Pollution Control Act 1994.*

Appendix 4 provides details of the policy and the data for all the forest communities within Tasmania's bioregions. In summary:

- The area of conversion of native forest in 2019–20 was less than the previous year (see Figure 1.9.1). Approximately 392 ha of native forest was converted to other land use (mainly for agriculture). This figure includes clearance of native forest for dams. The greatest area of native forest conversion was in the Woolnorth bioregion (198 ha).
- Overall, the state-wide reduction in the native forest estate over the period 1996–2020 amounts to approximately 159 408 ha (5.0% of the estimated 1996 native forest estate) as a result of conversion, mainly for plantations or agriculture (Table 1.9.1).
- The proportion of native forest conversion by bioregion varies from 12% (Woolnorth bioregion) to 0.2% (Furneaux bioregion).
- Approximately 17 ha of threatened native forest communities were cleared and converted in 2019–20. The clearance and conversion of threatened forest communities was to construct dams under a dam works permit.
- The 2017 policy states that broad scale clearance and conversion of native forest is not permitted, except for a number of defined activities including (but not limited to): agricultural clearing, construction of new significant infrastructure and to facilitate development demonstrating a substantial public benefit.
- Although the community thresholds were removed from the 2017 revision of the policy, the FPA continues to report on forest cover loss through FPPs. Table 1.9.2 shows that 17 bioregional communities are below the 75% of their 1996 area as a result of clearance and conversion activity.
- Two communities currently have less than 2000 ha within a bioregion as a result of clearance and conversion since 1996. These are *Eucalyptus regnans* forest in Woolnorth (down to 1706 ha from 2632 ha) and *E. viminalis / E. ovata / E. amygdalina / E. obliqua* damp sclerophyll forest in Ben Lomond (down to 1166 ha from 2091 ha). This does not include communities that were rare, with less than 2000 ha mapped in 1996.
- Since 2011 most clearance and conversion of native forest has been for agriculture and other non-forest use with very little for plantation establishment. The certification of FPPs for conversion of native forest to plantations virtually ceased on PTPZ land in 2007 (Figure 1.9.1).

The 2017 PNFE Policy has removed the requirement to consider bioregional thresholds. In addition, the 30% threshold for maintenance of native vegetation on offshore islands (e.g. King Island) was also removed.

Proposals for clearance and conversion of threatened native vegetation communities (forest and non-forest) must satisfy one of four requirements in s. 19(1AA) of the Act.

Threatened native non-forest vegetation communities do not form part of the permanent native forest estate but any clearance or conversion of them has been subject to regulation under the Act since 2007.

The FPA reports, under s. 4C(fa) of the Act, that Tasmania's native forest estate has been maintained in accordance with the PNFE Policy. The area of native forest as at 30 June 2020 is 95% of the estimated area of native forest that existed in 1996.

The implementation of the Policy can be problematic for the FPA as thresholds set in previous versions of the Policy have been removed. This often leads to protracted negotiations with land owners about affording reasonable protection to the environment while clearing trees for land use conversion.

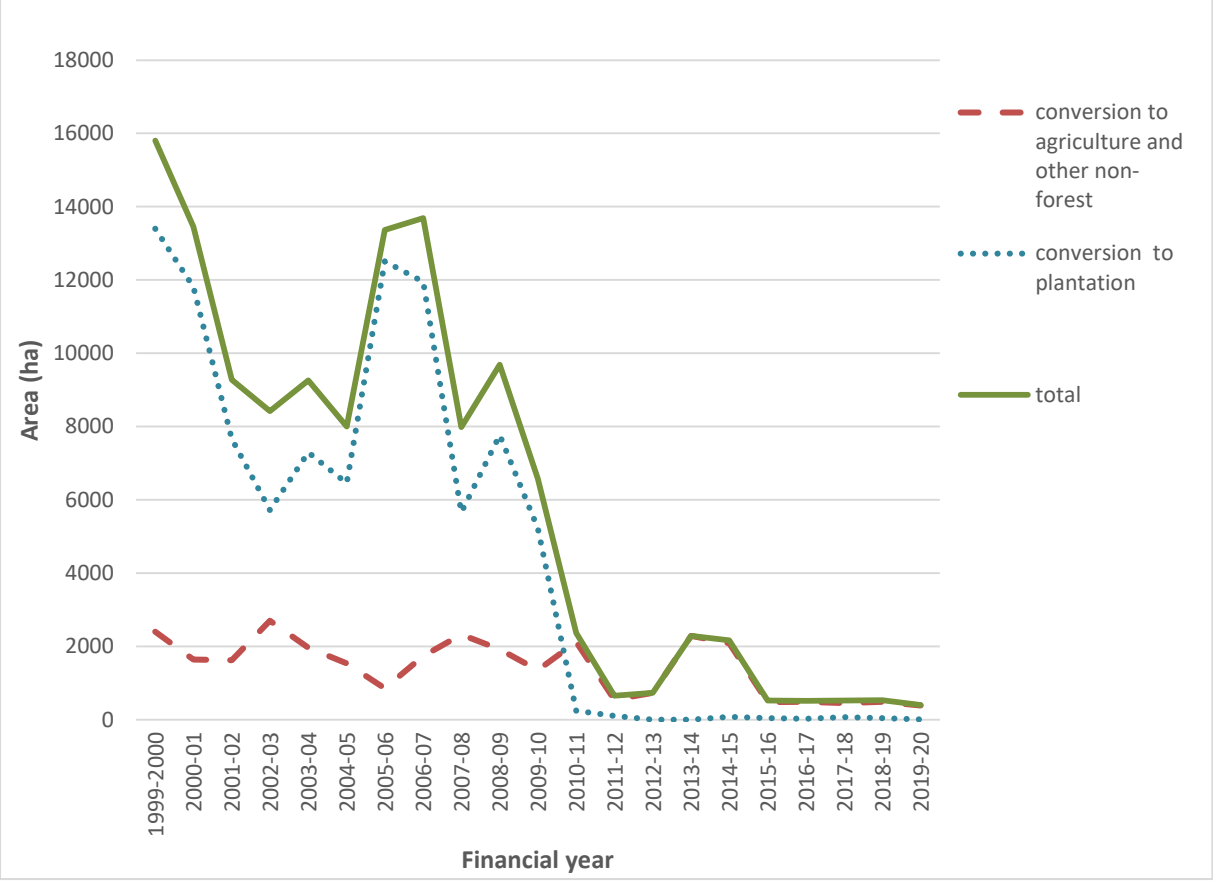


Figure 1.9.1 Area of native forest converted since 2000

Table 1.9.1 Loss of native forest in Tasmania and Tasmanian bioregions, relative to the 1996 estimated extent (based on the 2002 *State of the forests Tasmania* report dataset)

Bioregion	2018–19 Total % decrease of native forest since 1996 (at 30/06/19)	2019–20 Total % decrease of native forest since 1996 (at 30/06/20)
Woolnorth	12.0	12.0
Ben Lomond	9.5	9.6
D'Entrecasteaux	5.3	5.3
Central Highlands	4.6	4.6
Midlands	3.6	3.6
Freycinet	2.7	2.7
West and South-west	0.7	0.7
Furneaux	0.2	0.2
State total	**5.0**	**5.0**

Table 1.9.2 The number of forest communities with a reduction in bioregional area of more than 10% and 25% relative to their 1996 estimated extent (based on the 2002 *State of the forests Tasmania* report dataset)

Bioregion	Number of communities	Number of communities with substantial reduction in area since 1996	
		Total >10%	Total >25%
Woolnorth	35	14	2
Ben Lomond	28	11	9
D'Entrecasteaux	28	2	0
Central Highlands	34	6	4
Midlands	30	6	1
Freycinet	33	2	1
West and South-west	23	1	0
Furneaux	6	0	0
State total		**41**	**17**

The Threatened Native Vegetation Community Melaleuca ericifolia *forest in the Bridport area. In north-eastern Tasmania this forest community often occurs in small patches surrounded by eucalypt forest, or as isolated remnants in an agricultural landscape. The community is particularly vulnerable to damage from windthrow and grazing when left as an isolated small patch.*

1.10 Enforcement

1.10.1 Investigations

The FPA assesses all complaints relating to alleged breaches of the Act and the Code. Assessments are undertaken directly by FPA compliance staff, with assistance of FPA specialists when required, or by FPOs. Reports and recommendations are reviewed by the Chief Forest Practices Officer, and when appropriate by the Board of the FPA.

For the period 1 July 2019 to 30 June 2020 there were 196 public enquiries relating to forest practices (Table 1.10.1). This was slightly fewer than the number received last financial year (220 with 211 being finalised). Of the 196 enquires received this year, 178 were finalised with 14 remaining open and four being upgraded to formal investigations. Encouragingly, over a third of the enquiries (37%) are from people seeking information on what activities they can carry out legally.

Table 1.10.1 Enquiries by category

Category	2018–19		2019–20	
	Number	**% total**	**Number**	**% total**
Advice on forest practices	85	43%	79	44%
Concerns re forestry activities (in process)	13	7%	33	19%
Potential breach reported	38	12%	33	19%
Neighbour concern/community consultation	24	12%	12	7%
Other	38	19%	21	12%
Not categorised	13	7%	0	-

An assessment is elevated to an investigation where *prima facie* evidence exists that a breach of the Act may have occurred. The majority of investigations result from notifications made directly to the FPA from operational FPOs.

The purpose of an investigation is to acquire further information which is necessary to:

- determine whether an offence contrary to the Act has occurred
- identify those responsible for the offence (i.e. a responsible person/s)

Investigations may be undertaken in cooperation with other government agencies and/or the Tasmania Police. For example, in 2019–20:

- While undertaking field assessments relating to clearing of vegetation on King Island, the FPA identified that RAMSAR wetlands had been adversely impacted by a landowner. The FPA advised the Australian Government Department of Environment, and subsequently worked with officials to investigate this matter. The Department of Environment issued a Remediation Determination under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBCA) requiring restoration and rehabilitation work. The landowner has also been referred to the Tasmanian Office of the Director of Public Prosecutions (ODPP) in regard to alleged offences under the Act.
- The FPA continues to work with local governments on potential breaches of the Act or the *Land Use Planning and Approvals Act 1993*. Cooperative activities include the issuing of s.41(1) notices, information sharing to avoid duplications and allow for more appropriate use

of agency resources, and the maintenance of open lines of communications that allow issues that relate to Council and FPA matters to be addressed quickly and efficiently.

The FPA is developing closer arrangements with the Tasmanian Police to support information sharing, especially in relation to intelligence. This is designed to provide authority to establish joint approaches when progressing operational matters including conduct of investigations, interviews and prosecutions of matters relating to forest practices.

Formal legal actions arising as a consequence of serious breaches identified during investigations are undertaken in consultation with the ODPP.

The FPA progressed 55 investigations (Table 1.10.2) in 2019–20: 37 were finalised and closed; 18 remained active at 30 June 2020, with six carried over into 2020–21 from 2018–19 and 10 from 2019–20. Three were referred to the ODPP and one has progressed to the laying of a formal complaint under s.47(2) of the Act. Outcomes of all finalised investigations are detailed in Table 1.10.3 and the split of investigations by tenure, breaches and outcomes are shown in Figures 1.10.1 to 1.10.3.

Table 1.10.2 Summary of investigations

	2017–18*		2018–19*		2019–20*	
Total completed investigations (see table 1.10.3)	10	29%	17	45%	37	67%
Investigations in progress	24	71%	21	55%	18	33%
Total investigations (progressed)	34		38		55	

* Includes matters carried over from previous years.

Table 1.10.3 Outcomes of completed investigations

Outcome	2017–18*		2018–19*		2019–20*	
No breach	2	20%	3	18%	1	2%
Minor Breach, no serious environmental harm	0	0	0	0	5	12%
Notice issued to require corrective action or providing advice for opportunity for improvement	2	20%	8	46%	13+	30%
Penalty imposed by the FPA	4	40%	4	24%	16+	37%
Matter referred to the ODPP					3	7%
Matters resolved by the courts	0	0%	1	6%	0	0
Apparent breach but insufficient evidence or out of time to proceed with legal action	2	20%	1	6%	5	12%

* in some situations where more than one breach may have occurred, a corrective notice and a penalty may be applied.

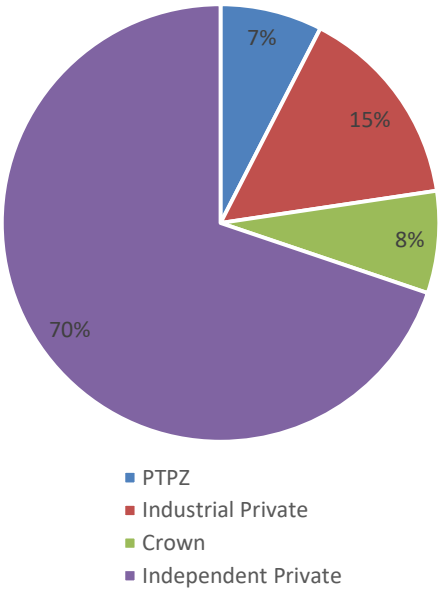


Figure 1.10.1 2019–20 investigations tenure

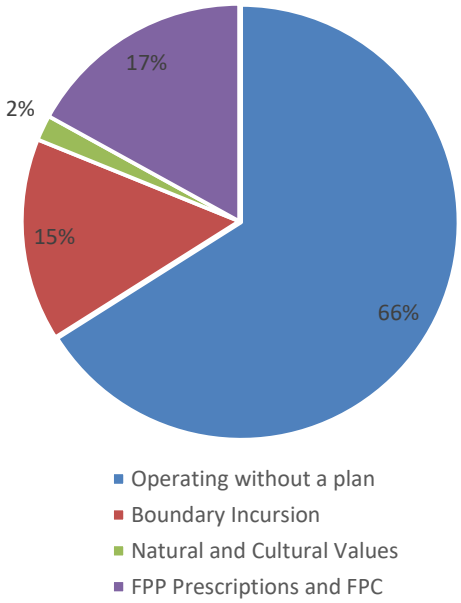


Figure 1.10.2 2019–20 investigations breaches

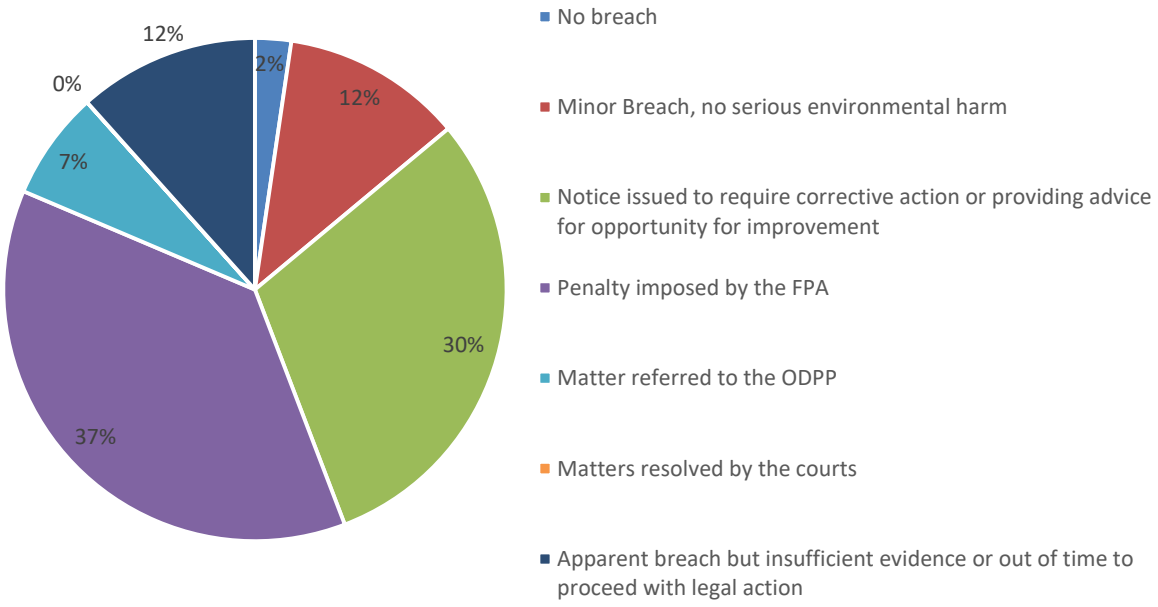


Figure 1.10.3 2019–20 investigations outcomes

The FPA remains concerned with non-compliance in the NIPF and agricultural sectors (shown in the above charts as independent private). Despite the Act being in force for 35 years there is still a concerning lack of awareness of the need to make enquiry about obtaining approval, if required, before trees are cleared, timber is harvested or threatened native vegetation communities are cleared and converted on private property. The FPA is working on a communication and engagement strategy to improve this situation but implementation is constrained by resources.

1.10.2 Notices and prosecutions

The forest practices system is designed to achieve high environmental standards, with an emphasis on planning, training and education. Where issues arise, the FPA prefers that they are dealt with through early detection and corrective action. Corrective action may involve remedial action, as well as reviewing and improving systems to ensure that similar issues do not arise in the future. In some cases, additional education and training is considered critical in ensuring that individuals, companies and agencies understand their responsibilities under the Act. Consequently, where issues arise through a lack of knowledge, the FPA prefers to address the issue by educating the responsible person/s to prevent similar issues arising in the future.

Penalties are appropriate where issues arise that generally reflect inadequate systems, insufficient care or repeat offences in order to reinforce the due diligence that all parties must apply when undertaking activities identified under the Act.

Legal enforcement may be undertaken in several ways:

- FPOs may give verbal or written notification (under s. 41(1)) to request the responsible person to comply with the Act, Code or an FPP. Where this notice is not complied with, an FPO may issue a second notice in writing (under s. 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 an s. 41(2) notice is a breach under the Act and can lead to sanctions.
- The FPA may prosecute (lay a complaint) for failure to have forest practices operations authorised by a certified FPP (s. 17), trading in treeferns without approval (s. 18B), failing to comply with a certified FPP (s. 21) or failing to lodge a compliance report (s. 25A).
- The FPA may offer a prescribed fine as an alternative to prosecution (s. 47B).

Table 1.10.4 Legal enforcement 2012–13 to 2019–20

	2012–13	2013–14	2014–15	2015–16	2016–17	2017–18	2018–19	2019–20
Formal notices issued by FPOs[1]	9	5	2	0	10	9	7	5
Fines imposed	5	7	3	6	3	4	5[2]	12
Quantum of fines ($)	5,000	13,000	3,500	13,000	14,000	23,000	103,000	62,000
Complaints laid	1	0	0	0	1	0	0	1[3]
Successful prosecution	1	0	0	0	1	0	1	0
Court fines ($)	5,500				50,000[4]		8,000[5]	

1 Refers to written notices and does not include verbal notices given by an FPO under s. 41 of the Act. The figures reported do not include notices issued with respect to overdue compliance reports or notices issued by FPA compliance staff conducting investigations.
2 Five fines were imposed across four investigations.
3 Two cases were still under consideration by the ODPP.
4 Arnold v Hickman [2016] TASSC 55.
5 Four charges were proven under s. 21 of the Act with a $2000 fine for each.

Under s. 47B of the Act, if the FPA is satisfied that an offence has been committed, it may, on payment of a prescribed fine by the alleged offender, cause any proceedings in respect of the alleged offence to be waived or discontinued. In 2019–20, a total of $62 000 of s. 47B prescribed fines under

12 actions was accepted as an alternative to prosecution: five people have entered into repayment plans as a consequence of COVID and other hardship provisions.

Details are:

- Mr J Graham, King Island, was issued with a $10 000 prescribed fine for clearing of trees without an FPP (s. 17).
- Mr P Warren, Flinders Island, was issued with two prescribed fines totalling $15 000 for clearing trees and TNVC without an FPP (s. 17).
- Mr G Combes, Taroona, was issued with a prescribed fine of $5000 for clearing trees and TNVC without an FPP (s.17).
- Stonehouse Grazing Pty Ltd, Lemont, was issued with a prescribed fine of $5000 for clearing trees without an FPP (s. 17).
- PC and EM Beattie Pty Ltd, Bushy Park, was issued with a prescribed fine of $10 000 for clearing trees and TNVC without an FPP (s.17).
- Mr J Scott, Gretna, was issued with a prescribed fine of $2000 for acquiring timber that had been harvested from land without an FPP (s. 17).
- Ms J Klug, Flinders Island, was issued with a prescribed fine of $2000 for clearing trees without an FPP (s. 17).
- Oldina Logging Pty Ltd was issued with a prescribed fine of $3000 for contravention of a certified FPP (s. 21).
- Tas Land and Forests Pty Ltd was issued with a prescribed fine of $3000 for contravention of a certified FPP (s. 21).
- Pentarch Forestry Australia was issued with a prescribed fine of $3000 for contravention of a certified FPP (s. 21).
- Mr A Johnson, Lemont, was issued with a prescribed fine of $4000 for contravention of a certified FPP (s. 21).

As an alternative to a fine, a landowner at Garden Island Creek entered into a binding agreement under an FPP to rehabilitate 1.76 ha of land on which he had cleared trees, including threatened native vegetation. The plan has a term of five years to ensure adequate reforestation has been achieved.

In addition, agreed resolutions to issues of concerns were reached with a number of landowners which resulted in improved administrative or environmental outcomes. These included reviewing wedged-tailed eagle nest identification and assessment systems, expanded reserves, and funding for research. Such agreements are an important tool as the net benefits are often greater than a monetary penalty, and are usually imposed where a breach is not wilful.

Additional actions:
Three investigations were referred to the Office of the Director of Public Prosecutions. As at October 2020, two complaints have proceeded to court and one is under consideration for prosecution.

1.11 Self-regulation

The Tasmanian forest practices system is based on a co-regulatory approach, involving self-regulation by the industry with independent monitoring and enforcement carried out by the FPA. The objectives of the forest practices system are outlined in Schedule 7 of the Act and are listed in the section on the forest practices system at the beginning of this report. Self-regulation is implemented through the following processes within the forest practices system:

- **Preparation of FPPs:** Section 18 of the Act provides that any person may prepare an FPP. The larger companies and STT generally employ staff to meet their own requirements for the preparation of plans. Consultants generally service smaller companies and private landowners. In practice most FPPs are prepared by trained FPOs or people under the supervision of a trained FPO.

- **Certification of FPPs:** FPP applications are considered for certification, refusal or amendment by accredited FPOs who hold delegated powers from the FPA according to s. 43 of the Act. These FPOs are known as FPO (Planning) and are required to have pre-requisite knowledge, training and experience and are appointed by the FPA after passing the FPO Training Course. Certification of FPPs is where an FPO signs off that the FPP has been prepared in accordance with the requirements of the Act, the Code and other relevant legislation, policies and FPA administrative instructions. FPPs certified in 2019–20 were summarised in Table 1.3.1.

- **Monitoring and inspection of forest practices:** Forest practices are supervised by FPOs. FPOs (Inspecting) and (Planning) have the power to issue notices under s. 41 of the Act in order to ensure that operations comply with the Act or with the provisions of a certified FPP.

- **Reporting on compliance under s. 25A of the Act:** The responsible person for a certified FPP must lodge an interim compliance report with the FPA within 30 days of the completion of each discrete operational phase of the forest practices authorised to be carried out under the plan. A final compliance report is due within 30 days after the expiration of the plan. Compliance reports must be signed by an FPO. The FPA may also request progress reports under s. 25B of the Act.

The FPA reports that, in accordance with s. 4E(1)(a) of the Act, a high level of self-regulation has been achieved on public and private land that is subject to operations. The non-industrial private forestry sector generally has a reduced capacity for self-regulation compared with larger forestry companies. The FPA is working towards better communications, training and education for this sector and the contractors that service it.

2 Research and Advisory Program report

2.1 Biodiversity Program

Advice

Between 1 July 2019 and 30 June 2020, Biodiversity Program staff responded to approximately 151 requests for advice on biodiversity issues from FPOs and other forest planners as part of FPP development, received through the online notification system. Of these, just under half (73 notifications) were for private land (including large freehold estates), with the remainder (78) for PTPZ land (Table 2.1.1). The number of notifications requesting biodiversity advice in 2019–20 was identical to the number received in 2018–19.

Table 2.1.1 Biodiversity Program notifications in 2019–20 based on notification system database and staff estimates compared to 2018–19 (in brackets)

	PTPZ land	Private	Total
Office assessment and advice provided	63 (45)	43 (46)	106 (91)
Field assessment and advice provided (not clearance and conversion of native forest)	15 (10)	16 (14)	31 (24)
Field assessment and advice provided (clearance and conversion operations of native forest)	0	14 (36*)	14 (36)
Total notifications	**78 (55)**	**73 (96)**	**151 (151)**

* The 2018–19 figure includes all clearance and conversion assessments (including plantation to pasture). The 2019–20 figures include only clearance and conversion of native forest.

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The Swan galaxias is a threatened native fish found mostly on private land. This one was captured during an FPA-Inland Fisheries Swan galaxias survey on private land in creeks adjacent to a plantation proposed for harvest.

Field assessments were undertaken for around 30% of the total number of notifications. This is slightly less than recent years (40% in 2018–19 and 2017–18, and 35% in 2016–17), but this reduction is, in part, because of the COVID-safe precautions taken by FPA to eliminate all non-essential fieldwork through part of 2020. As in previous years, more field assessments were for notifications on private land compared to PTPZ land. This can be attributed to clearance and conversion notifications for private land. Notifications for clearance and conversion of native vegetation for agricultural developments on private land took up a substantial amount of FPA ecologist time and constituted one-third of all field assessments. The purpose of these field assessments was primarily to assist planners with native vegetation mapping, identification of threatened species sites and habitat, and to provide specialist input into management of priority biodiversity values.

For native forestry operations, Biodiversity Program staff spent considerable time working on habitat identification and case-by-case management advice for proposed plans in potential swift parrot and masked owl habitat, and for management requirements for forestry operations within and adjacent to threatened native vegetation communities.

The recently established raptor notification system received 93 separate requests for advice during 2019–20. All but one of these were for advice relating to the wedge tailed eagle. Raptor advice requests were for a wide variety of forestry activities including FPP planning as well as location and management of new nests, management of absent nests and carting. Approximately 85% of raptor notifications were for activities on PTPZ land.

Other biodiversity issues requiring specialist advice included management of bushfire-affected habitat for threatened fauna, giant freshwater crayfish, Marrawah skipper, Lake Fenton trapdoor spider, threatened flora, implementation of wildlife habitat clumps, threatened native fish and biodiversity considerations in quarry FPPs.

Biodiversity Program staff provided specialist input and field time assisting the FPA Compliance Program staff with investigations, complaint enquiries and the annual monitoring of compliance. This included eight investigations, mainly related to alleged illegal clearing, as well as audits on nine FPPs.



The Biodiversity Program Ecologists spent considerable time on habitat identification and case-by-case management advice for proposed forest practices plans in swift parrot and masked owl habitat. Swift parrot photo by Mick Brown and masked owl photo by Simon Grove.

2.1.1 Planning tools and guideline development

Development and maintenance activities in 2019–20 for planning tools available for use by FPOs, delivered through the FPA website, included:

- **Biodiversity Values Database** (BVD): Species range boundaries and habitat descriptions continued to be updated by DPIPWE and FPA in 2019–20 as new information became available. Updates made were recorded in a database for compliance purposes. Changes were approved for the King Island brown thornbill range boundary. The BVD was reviewed and updated in 2019–20 to include a web map and survey notes for threatened flora. It has received very positive feedback from planners.
- **Threatened Plant Adviser** (TPA): FPA Ecologists continued work on the development of the TPA in 2019–20. The TPA is a planning tool that provides advice on the management of threatened flora species within areas covered by the forest practices system. In 2019–20 comments from the scientific reference group were incorporated into a final draft tool. This tool was then presented to DPIPWE for information and then to the FPA Board and FPAC for endorsement. It is expected that the TPA will be available on the FPA website, along with online training, in late 2020.
- **Threatened Flora Habitat Suitability Models** (HSM)*:* The HSM were endorsed on an initial 12-month trial basis as part of the Threatened Plant Adviser (TPA) endorsement process. These models form a new spatial planning tool that will be available on the BVD web map and will be released for the trial to coincide with the release of the TPA. A supporting technical note has also been prepared to assist planners with using the models.
- **Threatened Fauna Adviser** (TFA): work on maintaining this decision support tool for threatened fauna management continued during 2019–20. The project steering committee met to consider and discuss new species information, feedback from forest planners and suggestions for improvements before changes were made, to ensure that any changes were consistent with the endorsement procedures agreed between DPIPWE and FPA. Updates were made to the management pathways and/or recommendations for eagles, four species of stag beetle, and swift parrots. Changes were recorded in a database for compliance purposes.
- **Wildlife habitat clump technical note**: The results of the FPA's 2018–19 compliance assessment highlighted that the wildlife habitat clump technical note was in need of review. FPA biodiversity program staff have been working on a review of this technical note. The aim of the review is to ensure the note has a clear intent, is consistent with the *Forest Practices Code* and is easy to interpret. A draft of the revised technical note will be provided to stakeholders for feedback in late 2020.
- **Wedge-tailed Eagle Nesting Habitat Model***:* Reviewing the model is ongoing and as such no changes have been made to the current online tool. The revision includes three main components:
    1. updating the nests used in construction and testing of the model. The current eagle habitat model used 926 nests. The revision includes these nests and others that have since been located.
    2. reviewing environmental variables that were used in construction of the current model. Better use of aspect and elevation in model construction is being explored, including using aspect as a continuous rather than categorical variable.

3. reviewing the use of three sub-models. The three sub-models currently used (north-west Tasmania, low elevation [<850m] Tasmania and high elevation [>700m] Tasmania) may be refined to two models - northwest Tasmania and all of Tasmania.

- **Biodiversity evaluation sheets**: An updated evaluation sheet for quarry operations was developed, tested and distributed in 2019–20.

2.1.2 Policy, reviews and input to strategic planning

Staff were involved in the following strategic planning and review activities:

- **Annual review of the Agreed procedures between FPA and DPIPWE for the management of threatened species under the forest practices system**
  A review of the procedures agreed between the Board of the FPA and the Secretary of DPIPWE for the management of threatened species and communities under the forest practices system (section D3.3 of the Code) is in preparation. Information on the implementation of the procedures is provided in report *Procedures for the management of threatened species under the forest practices system: report on implementation during 2019–20.*

- **Scientific reference groups and steering committees**
  Biodiversity program staff provide specialist input into a number of references groups and steering committees related to biodiversity management in Tasmania including:
  - the scientific reference group for TASVEG, a comprehensive digital map of Tasmania's vegetation
  - Steering committees for two Natural Resource Management (NRM) swift parrot conservation projects; *Sugar glider control project: Trial of suppression techniques* and *Protecting the breeding population of Swift Parrots*
  - Property Assessment Group (DPIPWE)
  - Interagency working group on Threatened Species and Communities.

- **Review of *Treefern management plan for the sustainable harvesting, transporting or trading of* Dicksonia antarctica *in Tasmania, 2017***
  A review of Australian treefern literature and research and an MSc project have collected data and filled/revealed knowledge gaps related to treefern responses to silvicultural practices other than clearfell, burn and sow harvesting. The review was submitted for publication in 2020 and includes Australian data on commercial treefern operations, and present and future treefern population data with a changing climate. These projects will continue to provide important information to improve the effectiveness and sustainability of treefern management in Tasmanian forests, and to integrate such information and procedures into future revisions of the *Tasmanian treefern management plan*.

- **Strategic planning for threatened fish**
  FPA, STT and the Inland Fisheries Service commenced a project to develop a strategic approach for the management of habitat for the Clarence galaxias in forestry operations. This involved a review of current knowledge on species distribution and survey effort, a review of management advice provided to date, and an evaluation of the conservation benefit, practicality and socio-economic impact of different landscape scale management scenarios. The project will produce an updated potential range boundary, a new core range boundary, and new population-based habitat management recommendations in 2020–21.

2.1.3 Research and monitoring

The Biodiversity Program's staff contributed to 17 FPA research and monitoring projects in 2019–20 and five FPA-supported student projects (Table 2.1.2). A more detailed update on these projects is provided in *Monitoring the effectiveness of the biodiversity provisions of the Tasmanian Forest Practices Code 2019–20 summary report* (see reference list).

The Biodiversity Research Manager and Acting Research Biologist coordinated the research and monitoring activities in 2019–20. Any new projects initiated in 2019–20 were consistent with the priorities for effectiveness monitoring identified in the 2012 review. The business plan for these projects was reviewed and updated to assist with project planning and budgeting in 2016. Funding for these projects came from a variety of external funding sources including industry stakeholders.

Co-supervision by FPA staff of higher degree students affiliated with the School of Natural Sciences and the Centre for Forest Value, UTAS, continued in 2019–20 (Tables 2.1.2 and 2.1.3). The students included Evie Jones (devil behaviour, PhD, UTAS), and Alyce Hennessy (bats and remnants, Honours, UTAS).

FPA Ecologist Dydee Mann setting up a camera to monitor a proposed coupe for Tasmanian devil activity. Photo by Dion Robertson, Sustainable Timber Tasmania.

The research work was communicated to different audiences at a number of events throughout the year. FPA Biodiversity Program staff presented work at the Ecological Society of Australia Conference in December 2019 (see conference presentations). The annual FPA Research Update event was delivered for stakeholders in September 2019. The key outcomes relating to management were communicated to practitioners through *Forest Practices News* articles, presentations and field days (see training section 2.4 in this report). FPA Ecologist Angela Gardner also gave a presentation to third-year UTAS students on managing biodiversity in areas outside of reserves.

Some staff time was allocated to drafting and reviewing scientific papers from completed projects in 2019–20. Staff were co-authors or supervisors on five publications in scientific journals. Other publications included eight newsletter articles, five presentations at two conferences, one PhD thesis and one Honours thesis.

Other research and monitoring activities by FPA staff included obtaining and renewing data licence permits, renewing scientific collection permits and animal ethics applications.

Table 2.1.2 Biodiversity research projects that were current in the 2019–20 reporting period, with summary of activities undertaken

Project title	Activities during 2019–20
Monitoring the timing of the wedge-tailed eagle breeding season	Annual nest monitoring surveys were completed in November 2019. However, due to financial constraints only a single survey was done. There was insufficient data to confidently assess the timing of the breeding season. Instead a range of information sources were used to estimate the timing of the breeding season. The future of this work is under review.
Eagle nest prioritisation project	This project was initiated in 2015–16. The draft report was reviewed and it was determined that some additional data collection is required. This work is underway.
Testing the effectiveness of selected actions to mitigate the impact of forest practices on the wedge-tailed eagle	The aim of this project, initiated in 2018–19, is to assess whether the exclusion zones are effective in reducing disturbance to breeding eagles at the end of the season. The methodology for this project was reviewed, and the project will now use telemetry to determine how eagles respond to harvesting. Telemetry units will start being deployed in late 2020, with data collection continuing through to early 2022.
Modelling eagle habitat	The original FPA Eagle Nesting Habitat Model has been reviewed, and extra modelling done in response to reviewers' comments. The manuscript is being prepared.
Managing Tasmanian devil dens	The aim of this study, which started in 2014, is to identify and determine long-term use of den sites in production forest. Post-harvesting camera monitoring of the dens in the Florentine valley continued in 2019–20. Additional sites in adjacent revegetation areas were removed after a lack of evidence of devil activity. Two new monitoring sites were established on potential devil dens in coupes near Bothwell.
The spatial ecology of masked owls	The aim of this project is to learn more about the roosting and nesting requirements of masked owls. This project aims to track about six adult birds in the southern forests and locate their nest/roost sites. A project plan has been developed. A trial of field methods is planned for late 2020.
How effective are management actions for the Skemps snail?	The aim of this project was to assess the effectiveness of management for this species. Data analyses and preparation of a manuscript are underway.
How effective are management actions for the keeled snail?	Data analyses are being revised. This manuscript is expected to be submitted for publication in 2020–21.
Headwater stream management and water quality	The aim of this project is to test the effectiveness of the Class 4 Stream guidelines in reducing sediment input to sub-catchments that support the giant freshwater crayfish. The trial of sampling methods identified that the sample size needed to double. Consequently a second pilot study was required, but this was postponed due to COVID-19. After the pilot study, the research team will seek funds to conduct the final study.
Using eDNA techniques to detect giant freshwater crayfish	This project started in 2018 and is attempting to develop a genetic assay that can be used to detect *Astacopsis gouldi* from environmental DNA (eDNA) water samples. This project is a collaboration with UTAS and the University of Canberra. Field samples have been analysed and a manuscript is being prepared.
Monitoring the population stability of the Vulnerable shrub *Hibbertia calycina*	This project is looking at some long-term monitoring data for the species. A manuscript is in the final stages of preparation.
Response of *Pterostylis atriola* (snug greenhood orchid) to forestry disturbance in Tasmania	This project looked at the response of *Pterostylis atriola* to forestry-related disturbance events. This paper was published in 2019–20.
Treefern ecology	A manuscript reviewing the ecology of treeferns in Australia has been submitted to Austral Ecology for publication.
Modelling flora distributions	Threatened flora habitat suitability models were finalised and have been written up in a technical note that will soon be available on the FPA website. These models can be used to obtain a measure of habitat suitability in a geographical area and therefore allow forest planners to target 'hotspots' when undertaking threatened flora surveys. These models were presented at the Ecological Society of Australia's annual conference in November 2019.
Prioritising flora research	The process for prioritising flora research was completed and is currently being written up into a report
Regeneration of threatened native vegetation communities	A project plan was developed to assess how well threatened native vegetation communities recover after harvesting. The field work for this project was postponed due to COVID-19.
The effects of thinning and clearfelling on Simson stag beetle	This project is writing up historic data monitoring Simson Stag beetle (*Hoplogonus simsoni*) in one thinned regrowth coupe and one clearfelled coupe.

2.1.3.1 Student projects supported by FPA

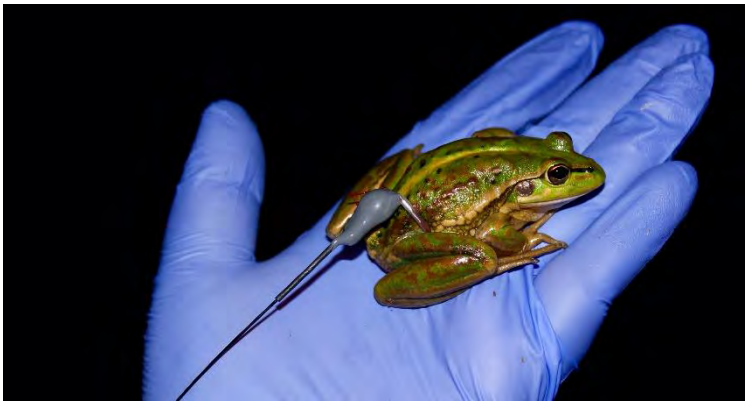
Student projects contribute to the work of the FPA and were either formally co-supervised in 2019–20 by the Biodiversity Research Manager or Acting Research Biologist through their adjunct positions with UTAS or they received other FPA support. Some have also received advice and support from the FPA's ecologists.

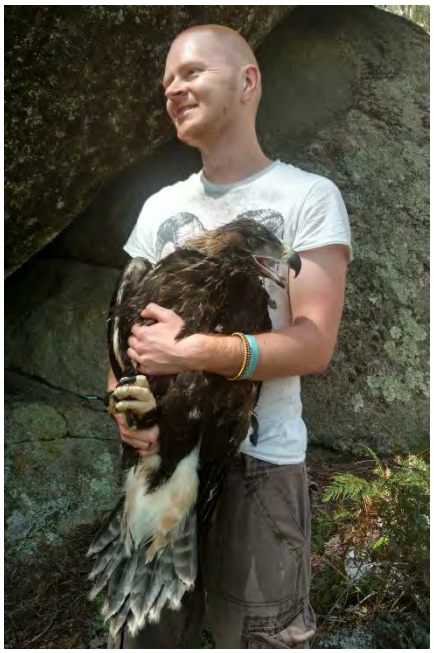
Table 2.1.3 Student research projects supported by the FPA in 2019–20

Project title	Activities during 2019–20
Behaviour of breeding eagles and the impact of disturbance	This PhD thesis by James Pay was submitted in August 2019. The FPA Biodiversity Research Manager co-supervised this project and the FPA raptor specialist provided expert advice and assisted with field work.
Threatened frogs in modified landscapes	Deakin University PhD student Tim Garvey has been analysing his data and preparing manuscripts. Feedback, logistical support and some funding was provided by the FPA.
The use of wet sclerophyll plantations by bats	This Honours project assessing how bat activity in plantations changes with distance to edge was submitted in February 2020. This project was supervised by the FPA Biodiversity Research Manager and Acting Research Biologist.
Devil response to plantation forestry	This PhD project by Evie Jones (UTAS) is co-supervised by FPA Biodiversity Research Manager with expert advice from FPA Ecologist Dydee Mann. The objective of this project is to determine how devils (and quolls) respond to plantation landscapes and harvesting operations. Field work for this project will commence in later 2020.
Impact of climate change on forestry pests	This Honours project by Thomas Jones (UTAS) has received advisory support from the Biodiversity Research Manager and Socio-economic Program Manager. This project will look at the impact of climate change on a plantation pest species.

2.1.4 Special projects, conferences and field days

Some staff time was spent on special projects, conferences and field days to increase the effectiveness and efficiency of the FPA Biodiversity Program.





Top: PhD student Tim Garvey has been radio-tracking the endangered Growling Grass Frog Litoria raniformis *in order to investigate the role of modified landscapes in its ecology and conservation.*
Right: James Pay has submitted his PhD on wedge-tailed eagles.

2.1.4.1 Landscape Planning Tool

The Landscape Planning Tool Project commenced in February 2020 and is a joint project between the Biodiversity and Socio-economic Programs at the FPA. The key objective of this project is to develop and implement a process and associated pilot tool to take into account both natural and socio-economic values when planning forest practices at a landscape scale. Work has commenced on preparing a review of landscape-scale management approaches used or trialled in forestry globally, and a stakeholder survey for users of the tool has been undertaken. The next steps will be undertaken in the second half of 2020 and early 2021. These include using the written review and stakeholder survey to develop the planning tool and then testing the tool in two case studies across Tasmania.

2.1.4.2 EAINZ Biodiversity Offsets Conference

FPA staff attended the National Biodiversity Offsets Conference in Canberra in August 2019. There is increasing interest in the use and effectiveness of biodiversity offsets to address the environmental impacts of development, such as land clearance for agriculture. FPA staff attended the conference to gain insights into offset frameworks implemented around Australia, and the way these frameworks can be improved. The conference provided information that is directly relevant to improving the FPA's offsets policy.

2.1.4.3 Biodiversity Program South American Study Tour

In September 2019 Anne Chuter (Manager, Biodiversity program) and Dydee Mann (Ecologist) travelled to South America to complete a short study tour in Chile and attend the International Union of Forest Research Organisations (IUFRO) World Congress in Brazil.

Dydee Mann and Christian Little Cárdenas discuss fauna values in the Valdivian forest Parque Llancahue.

The aim of the study tour in Chile was to strengthen relationships between the FPA and INFOR (the major forest research organisation in Chile), to understand the challenges and the priorities of forest research for INFOR, and the research being undertaken by forest companies, such as CMPC (one of the world's largest pulp and paper companies). The study tour has built a foundation for further collaboration and exchange of ideas and information in the future.

The theme of the IUFRO Congress was 'Forest Research and Cooperation for Sustainable Development' which provided a platform for presenting the Tasmanian forest practices system to a broad audience and for engaging with forest researchers and practitioners from around the world.

The IUFRO World Congress was attended by approximately 2500 delegates from more than 90 countries. FPA staff gave presentations on biodiversity management under the Tasmanian forest practices system and the opportunities and challenges with landscape-scale management of Tasmania's forests. The presentations were well received and instigated comment on the robust and unique structure of forestry regulation in Tasmania, provided discussion on issues in forestry across the world, and provided opportunity to make connections with other forest industry professionals for future communication and collaboration.

2.1.4.4 Visiting Architects Program

The Biodiversity Program Manager was a guest speaker at the Visiting Architects Program (VAP) in November 2019. The VAP was identified by the Resources-Trade Working Group as a key deliverable through the Department of State Growth's first Trade Annual Action Plan 2019–2020. The aim of the program is to drive a renewed focus on high-quality Tasmanian timber for use in construction, housing, furniture and design. Influential architects and designers have been identified as the core group to drive this focus.

2.1.4.5 Eagle aerial activity check program

Each year the FPA completes an aerial nest activity check program. The total number of nests flown in 2019 was 376, comprising 274 nests for the forest industry and 102 nests for consultancies. Of the 376 nests surveyed, 58 were identified as productive (53 with chicks and five with eggs).

Biodiversity Program Scientific Officer Jason Wiersma during a refuelling stop for the helicopter used during the annual aerial nest activity check program.

2.2 Earth Sciences and Cultural Heritage Program

2.2.1 Advice

Providing advice to FPOs is one of the most important functions of the Earth Sciences and Cultural Heritage Program and takes up roughly one third of staff time. Advice falls into three categories:

- Relatively simple coupe enquiries answered by a phone call or email.
- More complex issues that require an office assessment by FPA staff, because the coupe concerned contains identified risks such as karst or highly erodible soils or newly-discovered historic heritage. FPOs identify these risks by completing the *Earth sciences and cultural heritage special values form* which they forward with other site details and a draft FPP map.
- Complex issues or risks that require a field survey, almost always conducted with the FPO planning the coupe.

If a field survey is required, the coupe inspection and subsequent report will typically take two days to complete.

There was a slight increase in notifications received compared to numbers received in 2018–19 (Table 2.2.1), and four times as many field visits were made to PTPZ land than were made to private forests, reflecting the more complex issues associated with native forest harvest. In addition, two field visits were made to coupes to investigate complaints about forest practices sent in by the public. Thirty-four newly found historic sites were added to the Conserve historic sites database, accessible to all FPOs. Seven newly found Aboriginal heritage sites were added to the Aboriginal Heritage Register and to the Conserve Aboriginal heritage database.

Table 2.2.1 Earth Sciences and Cultural Heritage Program notifications in 2019–20 compared to 2018–2019 (in brackets)

	PTPZ land	Private forest	Total
Office assessment	66 (64)	119 (117)	185 (181)
Field assessment	30 (17)	7 (18)	37 (35)
Total notifications	**96 (81)**	**126 (135)**	**222 (216)**

2.2.2 Research and monitoring

2.2.2.1 Karst

Karst landforms, caused by the dissolution of carbonates by slightly acidic water, are extensive in limestone and dolomite terrain in Tasmania. Forest operations in karst terrain need to be conducted with great care because of the risk of polluting subsurface streams as well as the risk of damaging caves and disturbing important scientific sites and rare fauna.

Monitoring of karst development has been conducted at two plantation sites with active sinkholes. In coupes in the Florentine Valley, no effect of pine harvest on sinkhole development was noted. The results of this study, which have important implications for plantation management, were published in the journal *Australian Forestry*, volume 82.

Joint research into the rapidly developing sinkholes in the Railton area, conducted with University of Queensland researchers, continued. Results established that several large sinkholes formed as a result of water table lowering and diversion of a stream by the limestone quarry in the area. The results of the monitoring and research were published in the international publication *Journal of Cave and Karst Studies* (March 2020 issue).

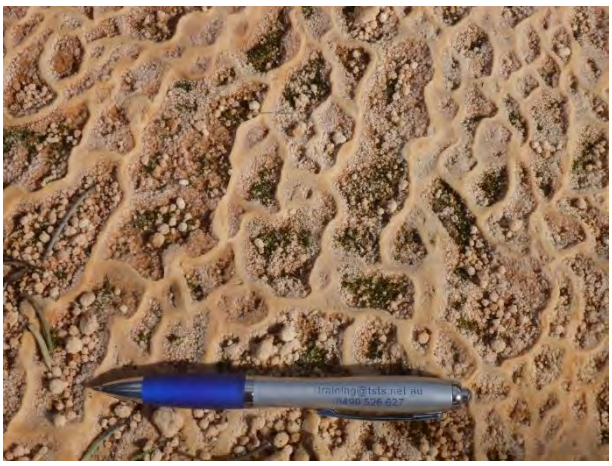
The informally named 'Blue Lake' in a plantation coupe at Railton has the characteristic colour of water which has flowed though limestone. The lake fills a sinkhole which developed in 2016 by collapse of soil and sediment into an underground cave following lowering of the water table by groundwater pumping from the nearby limestone quarry, which has now reached depths below sea level. The lake is fed from a stream carrying the pumped overflow from the quarry. Collapse of this sinkhole, and others in the coupe, is continuing. Active sinkholes like this means that land becomes unproductive for two reasons: the loss of plantable area and the risk to contractors of collapse of soils under the heavy machines required to cultivate land and harvest trees.

Karst landforms can also develop in non-carbonate rocks. On the upland Borradaile Plains in north-western Tasmania, caves have developed in hard quartzite outcrops, possibly by reaction with very acid peaty soils surrounding the outcrops. These unusual caves were described, and their formation discussed, in a paper published in the magazine *Helictite*, volume 45.

2.2.2.2 Geoconservation issues

Both Earth Scientists working at the FPA are members of the Tasmanian Geoconservation Database (TGD) working group which once a year assesses whether newly described sites are significant enough to be registered on the state's geoconservation database. This year the FPA Earth Scientists nominated an unusual deposit in a grassland reserve in a plantation in north-western Tasmania. Close inspection showed that it was produced by crystallisation of calcium carbonate from a carbonate-rich spring. The crystallisation (precipitation) of the carbonate formed a network of dams and basins in a miniature version of New Zealand's famous 'Pink and White Terraces' (though the latter were formed by the precipitation of silica). Also notable were the carbonate 'pearls' formed by grains of carbonate moving around in the flow of spring water. Remarkably this intricate geological feature is only a few

years old – the spring began to flow when an exploratory borehole intersected a carbonate rich-aquifer below a layer of basalt. The spring and its associated carbonate formations were nominated for inclusion in the Tasmanian Geoconservation Database and accepted.



Left: a general view of the carbonate deposit. At the bottom left of the image an intricate network of mini-dams and pools can be seen. These are shown in more detail in the above photograph, which also shows the carbonate 'pearls' in each mini-pool.

2.2.2.3 Soil carbon

During the year Tobias Klöffel of the Technical University of Munich completed his thesis on the quality of soil carbon (C) under 'wet' eucalypts and rainforest in Tasmania. His results and those of other researchers on the project results were later published in the *International Journal of Forest Research* (2020). The researchers showed that soils under mature wet eucalypt forests contain about the same amount of C as the rainforests which eventually replace them, in the absence of a fire. They also showed that previous estimates of soil C under eucalypt forests have been too high, resulting in C losses resulting from changed land use being overestimated.

As rainforests contain about half the biomass C of the eucalypt forests they replace, and this C is not made up for by an increase in soil C, the C in a mature eucalypt ecosystem is actually decreasing (by just over half a tonne of C per hectare per year) as it transitions to a rainforest ecosystem. For this reason, and because they may at any time be burnt by wildfires, setting aside mature eucalypt forests as reserves is not an effective long-term carbon-capture strategy, although reserves may still be desirable for other reasons, e.g. for protecting biodiversity, soil and water quality, or as iconic sites for tourists to visit.

2.2.2.4 Erosion

During the year, a coupe with major erosion resulting from overflow of a hydroelectric canal was investigated. The coupe's geology contributed to the erosion severity – soils were found to be developed in a type of strongly weathered dolerite colloquially known as 'mealy' dolerite, which erodes very easily when exposed to strongly flowing water, probably because of its unique

composition of erosion-susceptible clay minerals. Chemical analysis of the soils at another site in the Styx Valley has shown that subsoil salts may also contribute to this soil's erodibility. A University of Tasmania student has been engaged to work out why this soil is so susceptible to erosion.

Dr Richard Doyle (left) and student Neysan Pertl (centre right), both from UTAS, sampling the strongly weathered dolerite (far right) in an erosion gully near Dee River in the Tasmanian Central Highlands.

An intensive wildfire in the Mangana area burnt a large area of pine plantations during December 2019 and January 2020. The effects on flattish land are largely confined to the plantations themselves, but on steepland soils the erosion risks become higher after fire damage because evapotranspiration ceases, the absorption of rain by litter and topsoils decreases and (eventually) the binding effect of roots ends.

A burnt pine plantation in Mangana.

A network of photomonitoring sites was established in the Mangana pine plantations to monitor effects on fire-affected steeplands. By chance, 128 mm of rain fell on the two days following the establishment of the network on 1 April 2020. A visit after the rain showed erosion of stream channels on the unvegetated steep terrain, and accumulation of gravelly deposits in the Class 2 stream (Miami Creek) draining the steeplands. The company responsible for the plantation has already oversown all stream riparian zones with native seed in order to stabilise riparian areas, but further oversowing or planting may be necessary. Ensuring that erosion is minimised is essential for the sustainability of pine plantations on these erosion-prone steeplands.

Left: Miami Creek (catchment c. 280 ha) on 1 April 2020. Right: the same location on 1 June 2020. Note the increase in gravelly bedload of the stream, following heavy rain on 2 and 3 April 2020. The gravels are derived from eroding streams in the surrounding steeplands. Since the Mangana fire, all stream riparian zones in the plantation have been oversown with native forest species to assist stream stabilisation.

2.2.3 Commercial consultancies

A consultancy for FAO and the European Union, to assist in training Papua New Guinea (PNG) foresters in soil survey techniques, and specifically to assist with measuring soil carbon (C) in PNG, has been completed. During the consultancy, a method was developed to measure soil C in a statistically robust way and this method was later applied, with refinements, to soil surveys in Tasmania.

The PNG survey team found that measured soil C values are related to rock type and soil parent material, which enabled measured C values (to 1 m depth) to be extrapolated over the entire forested terrain of PNG using geological maps. Total C in forested soils was estimated to be 7.7 billion tonnes, which is more than the biomass C contained in the forests themselves, emphasising the importance of soil conservation measures for maintaining forest C stocks. The survey results will be published in the *Journal of Case Studies* (University of Queensland). Further work will be required to refine the soil C estimate, which should be regarded as a first approximation only.

Mr Nalish Sam (main photograph and inset), coordinator of the PNG soil survey, conducted as part of PNG's first National Forest Inventory, surveying the landscape in a eucalypt savannah site in the drier (southern) part of the country.

2.2.4 Cultural heritage

2.2.4.1 Aboriginal landscapes research

Further coring of wetlands with University of Queensland researchers has been carried out at two locations surrounded by forest – Surrey Hills in the northwest and Nicholas Swamp in the northeast. This research was to obtain evidence of when Aboriginal people first began to transform landscapes, which were probably thickly forested, into the open woodlands that we see today. This transformation was evident in the pollen record of shallower cores previously obtained.

Geoscientist Adrian Slee holding a core extracted from Yellow Marsh, Surrey Hills, north-western Tasmania.

Analysis of a core obtained at Yellow Marsh in Surrey Hills in north-western Tasmania, when combined with that of an earlier core, revealed that the area was a shallow lake in a subalpine treeless environment from about 28 000 years ago until 12 000 years ago. When climate warmed about 12 000 years ago, the Yellow Marsh area was dominated by open woodlands rather than rainforest, almost certainly due to regular Aboriginal burning to prevent ingress of rainforest species and maintain an open understorey of grasses and low shrubs conducive for grazing. It is likely that throughout the Holocene (the warm and wet period that we live in at present) the open woodlands were maintained by regular vegetation burning by the Aboriginal population, in order to attract game – a form of 'farming without fences'.

Nicholas Swamp, in north-eastern Tasmania, was cored in 2018 with hand tools to 2.82 m depth by student Amirah Farrell. The base of the core was dated to 47 000 years ago, to a period before the arrival of Aboriginal people. The core's basal section showed the vegetation at or near the site to be mainly eucalypt forest with tea tree (*Leptospermum* spp.). There was evidence of presence of megafauna in the form of spores of the dung fungus *Sporormiella*. At 1.65 m depth eucalyptus pollen and *Sporomiella* spores declined in number, probably indicating arrival of people and extinction of the megafauna. A new undisturbed and wider core was drilled by a University of Queensland student and staff members using a percussion auger (see photo at the end of the CFPO report), to obtain a deeper core with more chance of containing datable material that could be used to firmly date the vegetation changes at the site and link these dated changes to the first arrival of people in Tasmania. A brief description of the core was made by the University of Queensland student (Martin-Wallace 2020) and further work is planned.

2.2.4.2 Historic cultural heritage

When 'new' European cultural heritage sites are found during the preparation of FPPs, sites are mapped and photographs are collected so that a record of previous activities in forests and ex-farmland exists. Thirty-four new sites have been found this year. They range from intact machinery and tramways associated with early commercial harvest to domestic items like stacks of bottles and cooking pots.

Remnants of sawmilling machinery are regularly found during coupe inspections. The flywheel (top left) was probably driven by a steam engine like that illustrated (top right), manufactured by Hornsby of Grantham, Lincolnshire, UK. The bottles and pot were associated with the site of an old cottage, possibly belonging to a prospector, in north-eastern Tasmania.

The procedures for recording and protecting new sites are laid out in the FPA document *Procedures for managing historic cultural heritage when preparing forest practices plans*. All sites and artefacts are photographed and in some cases a site plan will be produced. FPOs send site details with accurate coordinates to the FPA cultural heritage manager who records them on a database and may advise on site management. Sites are also recorded on the Conserve location database, presently managed by STT.

2.3 Socio-Economic Program

The FPA Socio-Economic Program is overseen by an intra-governmental steering committee and funded as part of the Forest Industry Growth Strategy. It has been established in response to the need to better understand the full suite of social, economic and environmental considerations required for decision making in forest practices. The objectives of the program are:

- To improve the collection, analysis and consideration of forestry economic and related social data to facilitate greater cost-benefit analysis in environmental decision making within the forest practices system, consistent with the objectives of the Act and the roles and functions of the Forest Practices Authority.
- To consider and inform decision-makers of the potential socio-economic impacts of any proposed new or altered management prescriptions in the forest practices system and facilitate stakeholder engagement.
- To analyse and report on the socio-economic implications of the current management prescriptions, with a view to ensuring that environmental outcomes are delivered in both economically efficient and socially acceptable ways.
- To ensure accurate, up-to-date information is available to the community on the social, economic and environmental value of the industry.

The program activities in 2019–20 have been undertaken in accordance with the endorsed Socio-economic Program plan and are aligned with the key initiatives developed in consultations with industry, academic and government stakeholders (see Figure 2.3.1).

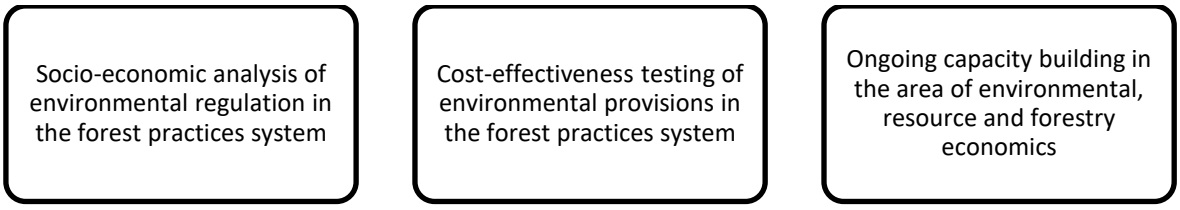


Figure 2.3.1 Key initiatives of the Socio-economic Program

From left: FPA Board member Amy Robertson with UTAS PhD students Nizam Husen Abdu (firewood), Bassie Yizengaw Limenih (forest residues) and Hasanthee Mohottige (off-reserve conservation).

2.3.1 Initiative 1: Socio-economic analysis of environmental regulation in the forest practices system

A significant amount of work has been undertaken to identify priority actions that will examine the costs and benefits of specific elements of (a) the current forest practices system, and (b) any proposed changes to the forest practices system. The key projects that have been active in 2019–20 are listed in Table 2.3.1.

Table 2.3.1 Socio-economic Program projects under initiative 1 that were current in the 2019–20 reporting period, with summary of activities undertaken

Project name	Project description
Baseline of the cost of compliance with the forest practices system	A model to identify current costs of compliance with the forest practices system has been developed. A second forest management model has been developed to allow landowners to calculate potential returns from forestry operations. The FPA has been working on a joint project with Private Forests Tasmania (PFT), which will see a conversion of the above tools (along with those proposed by PFT) into web-based spatial decision-support tools under a joint platform.
Natural capital accounting options scoping	A report has been prepared by Institute for Development of Environmental-Economic Accounting Group, which investigated the viability of incorporating natural capital accounting into the State of the Forests reporting system. The next step due to be completed is a complete outline on delivering a full set of accounts, considering costs, timeframes and other aspects.
Unlocking financial innovation in forest products with natural capital	The FPA (jointly with other industry partners) is contributing to a CSIRO-led, industry-driven National Institute for Forest Products Innovation (NIFPI) project aimed at 'Unlocking financial innovation in forest products with natural capital'. This project consists of 4 work packages. The outputs of the project so far have been: Work package 1 – an assessment of the opportunities for non-timber natural capital financing, barriers to adoption and opportunities to overcome these barriers, with a focus on Tasmanian and Australian forestry. Work Package 2 – development of the forestry-specific natural capital risk assessment methodology. This work has identified and characterised natural capital impacts and dependencies leading to financial risks associated with Australian forestry activities. Work is still ongoing on Packages 3 and 4.
Sustainable firewood in Tasmania	The FPA economist is providing co-supervision to a UTAS PhD student, whose project is concerned with the identification of market preferences for sustainable firewood in Tasmania. Initial results indicate significant and positive willingness to pay by Tasmanian consumers for a sustainably and legally sourced firewood product. Based on the results of the Discrete Choice Experiment (DCE), an academic paper is currently being prepared to highlight the findings.
A socio-economic decision-making framework	The FPA economist has been working with the UTAS academics and stakeholders to develop a socio-economic assessment framework, which will enable the FPA to assess the full set of environmental, economic and social impacts as part of its decision-making process. Once endorsed, the framework will form part of the FPA overall assessment process.
Landscape level special values planning	This ongoing project is developing a web-based decision support tool for landscape planning that takes into account economic and environmental (biodiversity) values, for use by forest planners. This project is being developed jointly between the Socio-economic Program and Biodiversity Team, reporting to the Socio-economic steering committee.

2.3.2 Initiative 2: Ongoing social, environmental and cost effectiveness testing of regulatory provisions within the forest practices system

The projects under this initiative are aimed at providing information on the socio-economic impacts of the Code provisions (current and proposed) – examining a range of threatened species-related recommendations to ensure that prescriptions protecting threatened species and other biodiversity values remain robust and effective. Information gathered will help inform a balanced approach

between economic cost and effective environmental protection. The list of active projects in 2019–20 is provided in the Table 2.3.2.

Table 2.3.2 Socio-economic Program projects under initiative 2 that were current in the 2019–20 reporting period, with summary of activities undertaken

Project name	Project description
Effectiveness testing of the biodiversity provisions of the Tasmanian *Forest Practices Code* – socio-economic assessment	This project forms part of the broader Forest and Wood Products Australia supported effectiveness monitoring program managed through the FPA and Biodiversity Program in collaboration with other research and industry partners. The socio-economic component of it is underway and will deliver an analysis of forest practices provisions, current, and proposed, that apply to the three iconic threatened species (wedge-tailed eagle, masked owl and giant freshwater crayfish). It will contribute towards improving socio-economic data and will directly inform decision-making to help identify potential cost-saving opportunities that deliver the same (or greater) benefit. The delivered outputs of this project to date are: a) a set of user-friendly decision-support tools to calculate costs of species prescriptions, b) operational manuals to accompany the tools, and c) analytical reports highlighting key findings of the project.
Clarence Galaxias strategic management economic assessment project	This ongoing project follows the proposed FPA socio-economic assessment framework and includes an analysis and report on the impacts of introducing new strategic management prescriptions for the Clarence Galaxias fish.
Eagle advice review	This project reviewed the advice given from the FPA for eagle management with relation to carting and road use activities. A report outlining the results of the analysis and some recommended updates to eagle management prescriptions were presented to the Biodiversity Program.
Review of forest practices codes	This ongoing project is a comparative review of forest practices codes across four states of Australia. Once complete, the review will provide an outline of the contents of each code and a discussion on their relative attributes. This review will provide the context for further projects which aim to test the effectiveness of the code against some set economic and environmental indicators.

2.3.3 Initiative 3: Capacity building within the area of environmental and resource economics

Over the past year the capacity within the Socio-economic Program has really grown, which became evident in the FPA's research update, with a marked increase in socio-economics presenters.

Two PhD candidates were awarded FPA scholarships as part of the capacity-building initiative and are currently working on projects that are of high relevance to both the forestry industry and the FPA. Both students are co-supervised by the CFPO and FPA Economist and industry stakeholders are being consulted throughout to maintain relevance of both projects.

The third PhD scholarship has been offered to another successful candidate, who will commence their study at the end of 2020.

The Socio-economic Program's Graduate Officer has completed formal training through the Tasmanian State Service Graduate Program and the FPA is also supporting UTAS' Corporate Internship Program by facilitating the successful placement of two undergraduate business and economic students, ensuring an ongoing interest amongst the students in the field of forestry and its economic and social impacts.

Industry stakeholder engagement and close collaboration with University academics remain a high priority for the FPA socio-economic program to ensure that the outputs are relevant, applicable and sound.

2.4 Training, education and community engagement

2.4.1 *Forest Practices News*

One edition of *Forest Practices News* was published by the FPA in 2019–20 and can be found on the FPA website. The newsletter provides a channel for communicating new ideas and developments among those interested in the management of Tasmania's forests. Emphasis is placed on practical and applied information, particularly on articles supplied by practising FPOs. FPA staff and the Chief Forest Practices Officer contributed 14 articles to *Forest Practices News*. The Publications Officer and the Earth Sciences and Cultural Heritage Manager edit the newsletter.

2.4.2 Forest practices system training

FPA staff ran or contributed to the educational events, courses and symposia listed below in chronological order.

2.4.2.1 Training in Aboriginal heritage

An Aboriginal heritage course was held on Bruny Island in July 2019. It was conducted by Rodney Dillon (Chair of the Aboriginal Heritage Council on Murrayfield Farm, Bruny Island), Aboriginal Heritage Tasmania and the FPA. FPOs who wish to survey coupes for Aboriginal heritage and obtain access to Aboriginal databases need to undertake FPA training in Aboriginal heritage. This training covers not only the physical components of Aboriginal culture and everyday living (for example, stone artefacts, middens and rock art) but also Aboriginal history and values.

Another course in Aboriginal heritage was planned for May 2020 but had to be cancelled due to restrictions on group size during the COVID-19 pandemic.

Rodney Dillon, Chair of the Aboriginal Heritage Council, discussing Aboriginal heritage with participants on the FPA Aboriginal Heritage course held on Bruny Island.

2.4.2.2 Cable Harvesting Field Day

Staff from the FPA and Department of State Growth visited logging contractors TP Bennett and Sons at a cable harvesting operation in the southern forests in August 2019. It was an opportunity for FPA staff to see first-hand the physical, environmental and economic constraints of cable harvesting in wet eucalypt forests on steep slopes. See article in the October 2019 issue of *Forest Practices News*.

2.4.2.3 Research Update

Left: discussing cable forest harvesting. Right: Adrian Bennett explains how the cable rig works.

The FPA's Research Biologist ran the annual FPA Research Update event in September 2019 during which researchers presented information about their projects. The purpose of this annual event is to update stakeholders, industry personnel and other researchers on research that has been conducted in the last financial year that considers the effectiveness of provisions implemented through the forest practices system for the conservation of natural and cultural values. See article in the October 2019 issue of *Forest Practices News.*

2.4.2.4 Quarry Forest Practices Plan Training Course

The FPA ran a two-day Quarry Forest Practices Plan Training Course in early September 2019 in the Southern Forests. A quarry FPP is required for a quarry that is to be operated in connection with forest practices, as per section 17 of the Act. Quarry plans can only be certified, amended or varied by Planning FPOs who have been given specific authorisation after having completed relevant training conducted by the FPA.

The FPA last ran this course ten years ago and since then there have been big changes in the forest industry. There are currently fewer than 20 active FPOs who have quarry delegations. This group has been supplemented by some of the 18 participants on this course.

In the process of preparing for this course, the FPA worked with the forest industry, Environmental Protection Authority, Mineral Resources Tasmania and WorkSafe Tasmania to review and update quarry management in the forest practices system. Consultants Allan Lee and David Tucker helped the FPA present the training.

2.4.2.5 Quarry Forest Practices Officers Refresher Course

In October 2019, the FPA ran a compulsory refresher course for the 12 FPOs who wished to retain their delegations to certify, amend or vary quarry FPPs. The FPA has recently updated procedures and training for forest quarry management, resulting in significant changes to the quarry FPP process. The compulsory refresher course was developed to ensure that all current quarry FPOs are up-to-date and familiar with the recent changes.

2.4.2.6 Forest Education Conference

The Forest Education Foundation (FEF) hosted the 'Stories behind our Trees' conference in Launceston from 31 October to 1 November 2019. The purpose was to bring together forest industry representatives and educators and to launch the Tasmanian Forest Education Plan. The plan is intended as a guide for developing forest literacy in Tasmania. Guest speakers came from Oregon, USA, to share their experiences of forest education.

The FPA contributed to the field day by running a 'Forest connections walk' at Hollybank for the conference participants. Dydee Mann (Ecologist, Biodiversity Program, FPA) and Adrian Slee (Scientific Officer, Earth Sciences, FPA) spoke about the forest practices system, and their roles within it. Dydee talked about the features of a good habitat tree, and in which hollows and crevices of the tree different animals might live. She also demonstrated how to use a EucaFlip to identify different kinds of native tree. Adrian encouraged people to get their hands dirty investigating soil characteristics and the way in which different soils and topography determine vegetation communities.

FPA Ecologist Dydee Mann demonstrates to conference participants how different animals have different tree hollow requirements.

2.4.2.7 Forest Education Foundation field day

In December 2019, FPA staff helped the FEF run a forest excursion for 40 children from Howrah Primary School. The classes had won FEF's forest artwork competition and a day in the forest with FPA's specialists was their prize. Activities included matching items found in the forest with colours on paint sample cards, gathering and identifying fauna faeces, learning about tree hollows and their occupants, soil augering, and finally learning about the FPA's role as the 'forest rule enforcer'.


Forest Education Foundation field day with Howrah Primary School with Angela Gardner (Ecologist and Executive Assistant, left) and Adrian Slee (Scientific Officer, Earth Sciences, right.

2.4.2.8 Marrawah skipper training

Dr Phi Bell, Consultant Ecologist with the FPA, provided five separate instances of informal training to Forico and STT staff on identifying Marrawah skipper shelters and habitat in coupes with potential habitat outside of the previously known range for the species. The training took place prior to changes to management prescriptions for Marrawah skipper and fostered an interest in the species. As a result, staff from both organisations have recorded new locations for this threatened species.


Simon McNamara, Forico, searching potential habitat (Carex) for Marrawah skipper shelters. Photo of Marrawah skipper by Phil Bell.

2.4.3 Forest Practices Officer training

FPOs act as authorised officers of the FPA in the execution of certain sections of the Act and in the interpretation of the Forest Practices Regulations 2017. An important function of the FPA is to train FPOs to ensure that they have the required skills and knowledge to carry out their role prior to appointment as an FPO.

Aspiring FPOs must successfully complete the FPO Training Course coordinated by the FPA, which is generally run every two years. The last FPO Training Course was run in 2017, but the next course has been delayed by one year to late 2020 due to insufficient enrolments, the review of the Code and COVID-related issues.

Although this course is no longer run as a nationally accredited course due to the associated expenses, it meets the standards of the nationally accredited course. The Training Coordinator has completed a Certificate IV in Training and Assessment to achieve this.

FPO Refresher Courses

The FPA runs a series of regional and compulsory FPO Refresher Courses every two years to ensure that FPOs keep their knowledge of the forest practices system current. The next Refresher Courses will be held in late 2020.

2.4.4 Website Photo Competition

The FPA ran the Website Photo Competition 2019 to gather photos to be used on the new website. A photo of a forwarder working in forest after the Geeveston fires taken by Meeghan Price won the overall prize for FPA's Website Photo Competition 2019, out of 83 entries. The three category winners were Anthony Mann (Forests), Meeghan Price (Management) and Michael McClenahan (People).

Winning entries in the FPA Website Photo Competition – People (upper left, Michael McClenahan), Forests (upper right, Anthony Mann) and Management (bottom, Meeghan Price).

3 Administration of forest practices

3.1 The Board of the Forest Practices Authority

The FPA has the statutory responsibility for advancing the state's forest practices system and fostering a cooperative approach in developing policy and management in forest practices matters. The forest practices system is based upon a co-regulatory approach involving a balance between self-management by industry and independent monitoring by the FPA. The Board of the FPA provides independent advice and statutory reports to the Minister for Resources.

The statutory functions of the Board of the FPA as laid down in s. 4C of the Act are to:

- advise the Minister on forest practices policy in respect of both Crown land and private land
- regularly advise and inform the Minister on its work and activities under the Act
- advise the Minister on the operation and review of the Act
- issue and maintain the Code
- oversee standards for FPPs (FPPs)
- oversee the administration of PTRs by Private Forests Tasmania
- monitor and report to the Minister on harvesting, the clearing of trees and reafforestation activity in relation to the maintenance of a permanent forest estate
- implement the state's PNFE Policy
- oversee the training of FPOs
- make a recommendation on the appointment of the Chief Forest Practices Officer and to appoint FPOs
- perform such other functions as are imposed on it by or under this or any other Act
- perform any prescribed functions.

The Board of the FPA: (from left), John Hickey, Cheryl Arnol, Amy Robertson, John Ramsay (Chair), Peter Volker (Chief Forest Practices Officer), David Gatenby, Alex Schaap.

3.1.1 The directors of the Board of the Forest Practices Authority

The directors of the Board in 2019–20 were as follows:

- Independent Chair, with expertise in public administration, environmental or natural resource management and governance: John Ramsay (appointed 1 July 2015)
- a person with applied knowledge and expertise in environmental or natural resource management: Alex Schaap (appointed 1 July 2015)
- a person with applied knowledge and expertise in sustainable forest management on private land: David Gatenby (appointed 15 December 2015)
- a person with applied knowledge and expertise in sustainable forest management on public land: Amy Robertson (appointed 13 August 2016)
- a person with applied knowledge and expertise in community liaison and local government, from an area in which forestry is a major land use: Cheryl Arnol (appointed 1 July 2015)
- a person with independent expertise in biological science/nature conservation: John Hickey (appointed 1 July 2015)
- the Chief Forest Practices Officer: Peter Volker (appointed as Chief Forest Practices Officer and Director 5 April 2016).

3.1.2 Qualifications, other relevant positions held and declaration of interest by directors

John Ramsay AM, LLB

- Member – Tasmanian Planning Commission

Alex Schaap BSc (Hons)

- Member - Resource Management and Planning Appeals Tribunal
- Member - Inland Fisheries Advisory Council

David Gatenby

- Director –Tasmanian Heritage Council
- Member – Tasmanian Farmers and Graziers Association (TFGA)
- Landowner including private forests (native forest and plantation)

Cheryl Arnol MAICD

- Councillor - Glamorgan Spring Bay Council
- Member - Australian Institute of Company Directors
- Chair - Glamorgan Spring Bay Council NRM committee

John Hickey BForSci(Hons), MSc, MIFA

- Member - Committee of the Tasmanian Division, Institute of Foresters (Australia)
- Contract to identify research priorities for native forest silviculture for Forests and Wood Products Australia

Amy Robertson BEnvSc(Biodiversity Conservation), DipNatResMgt, MIFA, GAICD

- Owner of land with native forest
- Husband undertakes forest practices work for STT

Peter Volker BSc(Forestry), GradDipSc(Forestry), MBA(EnvMgt), PhD, FIFA, MAICD, MEIANZ, RFP

- Chief Forest Practices Officer (see section 3.3)

3.1.3 Remuneration

Total remuneration paid to non-executive directors of the FPA falls within the following bands: $20 000 to $29 999 (five directors) and $40 000 to $49 999 (one director).

The Chief Forest Practices Officer is appointed under an Instrument of Appointment in accordance with the *State Service Act 2000* at Senior Executive Service level SES2.

3.1.4 Activities of the Board of the Forest Practices Authority

The Board had 11 meetings during the year. The Board meeting is summarised in a communique for each meeting which is sent to the Minister, FPAC and posted on the FPA website. Major actions of the Board during the year, which are not discussed elsewhere in this report, included:

- development of a three-year strategic plan
- dealing with non-compliance matters
- proposing amendments to the Act and Regulations
- reviewing the Code
- discussing the new state planning provisions and interaction with the forest practices system
- discussions on management of threatened species under the forest practices system, including with DPIPWE and STT on a strategic management plan (PAMA) for swift parrots in the southern forests
- briefing on cyber security from DSG
- development of a communications and engagement strategy
- considering applications for clearance and conversion of threatened native vegetation communities under s. 19(1AA) of the Act
- responding to the bushfire emergency as appropriate
- considering challenges facing FPA about clearing activities on Bass Strait Islands
- endorsing a Hobart City Council vegetation management agreement for Queen's Domain
- discussing emerging issues associated with implementation of the PNFE Policy
- deciding to limit consideration of applications for clearance and conversion of native forests for agricultural purposes to 40 ha per property per year to a single FPP under the PNFE Policy, which reinforces a Board decision in 2010 under a previous version of the Policy.

The Board had four standing committees in 2019–20 as follows:

- Audit and Risk Committee – this committee assists the Board in fulfilling its responsibilities in relation to proper risk, financial, compliance and performance management of the FPA. It comprised David Gatenby (Chair), Cheryl Arnol and John Ramsay.
- Work Health and Safety Committee – this committee implements responsibilities in relation to oversight of work health and safety management within the FPA. It comprised all Board members.
- Compliance Committee – this committee engages regularly with the Chief Forest Practices Officer and Compliance Manager to identify and pursue opportunities for improving compliance with sustainable forestry practices in Tasmania both through the actions of the FPA and other agencies. It also reviews investigations conducted by the FPA into alleged breaches to ensure that the required standards of rigour, fairness and consistency are maintained. The committee comprised John Hickey (Chair), Amy Robertson and Alex Schaap.

- Finance Committee – this committee assists the Board in its oversight responsibilities relating to fiscal management. It comprised John Ramsay (Chair), Alex Schaap and Amy Robertson.

Table 3.1.1 Attendance of directors of the FPA at meetings and committees

Director	Board meetings attended (11 meetings held in 2019–20)	Other meetings attended/services rendered
John Ramsay (Chair)	10	Meetings of the FPAC; Audit and Risk Committee; Finance Committee
Alex Schaap	10	Compliance Committee; Finance Committee
David Gatenby	11	Audit and Risk Committee
Amy Robertson	11	Compliance Committee; Finance Committee
Cheryl Arnol	11	Audit and Risk Committee
John Hickey	11	Compliance Committee
Peter Volker	10	Meetings of the FPAC; Day-to-day administration of the forest practices system (see section 3.3 below)

3.2 Forest Practices Advisory Council

The functions of the FPAC are to advise the Board of the FPA on reviews of the Act and the Code, financial matters including self-funding and the effectiveness of forest practices administration, operations, and research.

On 7 October 2019 s.37A of the Act was amended to allow the addition of three new members to FPAC under the following sub-sections:

(fa) a person with knowledge and expertise in the administration of forest policy who is nominated by the Secretary of the Department

(fb) a person with knowledge and expertise in relation to natural heritage or cultural heritage who is nominated by the Secretary of the department that is responsible, for the administration of the *Nature Conservation Act 2002* , to the Minister to whom that Act is assigned

(fc) a person, other than the chief forest practices officer, who is a forest practices officer

Members of the FPAC in 2019–20 were:

- a person with knowledge or expertise in sustainable forest management (Chair): Dr Hans Drielsma (re-appointed 11 June 2018)
- a person with knowledge of the state's resource management and planning system in relation to municipal areas in which forestry is a major land use, nominated by the Local Government Association of Tasmania: Shane Wells (appointed 3 April 2017; served until 12 May 2020) then Jo Oliver (appointed 13 May 2020)
- a person with expertise in, and operational experience of, forest harvesting or forest contracting: Clive Woolridge (appointed 30 October 2018)
- 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*: Wes Ford (re-appointed 26 February 2019)
- a person with knowledge of administration and legislation in relation to private forests, nominated by Private Forests Tasmania: Penny Wells (appointed 1 August 2018)

- a person with knowledge of administration and legislation in relation to multiple use forests, nominated by the forestry corporation: Suzette Weeding (re-appointed 11 June 2018)
- a person with expertise in, and experience of, forest issues in relation to harvesting and processing, jointly nominated by the Forest Industries Association of Tasmania (FIAT) and the Tasmanian Sawmillers Association: Terry Edwards (vacant until 7 September 2019 then re-appointed on 9 September 2019)
- a person with expertise in, and experience of, forest issues in relation to forest conservation: Fred Duncan (re-appointed 11 June 2018)
- a person with expertise in, and experience of, tree growing on private land, jointly nominated by the TFGA and FIAT: Wayne Johnston (appointed 11 September 2018)
- a person with knowledge and expertise in the administration of forest policy who is nominated by the Secretary of the Department: Alastair Morton (appointed 11 November 2019)
- a person with knowledge and expertise in relation to natural heritage or cultural heritage who is nominated by the Secretary of the department that is responsible, for the administration of the *Nature Conservation Act 2002* , to the Minister to whom that Act is assigned: Deidre Wilson (appointed 11 November 2019)
- a person, other than the chief forest practices officer, who is a forest practices officer: Ann la Sala (appointed 11 November 2019).

The FPA Board Chair and Chief Forest Practices Officer are invited to attend all FPAC meetings and executive support is provided by the FPA. Three meetings were held during the year. The major issues addressed by the FPAC during the year included:

- the Chief Forest Practices Officer's guidelines to FPOs for implementing the PNFE Policy
- a review of the functions of FPAC
- amendments to the Act
- review and endorsement of the amended Code
- FPA staff resources and time spent on providing advice to proponents on proposed clearance and conversion activities
- critically endangered swift parrot and a related Public Authority Management Agreement between STT and DPIPWE
- the cost of compliance with swift parrot prescriptions
- an update of an Earth Sciences Technical Note
- review and endorsement of the Threatened Plant Adviser, a new planning tool for forest practices
- review and endorsement of a mature habitat suitability model for practitioners on a trial basis
- the financial outlook for the FPA.

3.3 Chief Forest Practices Officer

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

- extensive expertise in forestry
- extensive experience in forest operations

- knowledge of the sustainable management of forests
- management skills.

Dr Peter Volker was appointed as the Chief Forest Practices Officer in April 2016.

Chief Forest Practices Officer's qualifications, other relevant positions held, affiliations and declaration of interests:

- Bachelor of Science (Forestry) – *Australian National University* 1981
- Graduate Diploma of Science (Forestry) – *Australian National University* 1989
- Doctor of Philosophy – *University of Tasmania* 2002.
  Thesis title: Quantitative genetics of *Eucalyptus globulus, E. nitens* and their F1 hybrid.
- Master of Business Administration (Environmental Management) – *University of Tasmania* 2012
- Certificate IV in Assessment and Workplace Training 2002
- Certificate IV in Government Investigations (Regulatory Compliance) 2018
- Diploma of Fraud Control 2019
- Registered Forestry Professional (with specialist expertise in silviculture and forest genetics)
- Fellow of the Institute of Foresters of Australia
- Member of the Commonwealth Forestry Association
- Member of the Environment Institute of Australia and New Zealand
- Member of the Australian Institute of Company Directors
- Honorary Research Associate – University of Tasmania

3.4 Forest Practices Officers

The FPA appoints FPOs under s. 39 of the Act. An appointed FPO holds a warrant which authorises them as an FPO (Inspecting), but an additional power to certify FPPs may be delegated to FPOs authorised as FPO (Planning).

FPOs are employed by forest companies, STT and Private Forests Tasmania or are engaged as independent consultants to plan, supervise, monitor and report on forest practices and ensure that operations comply with the Act and the Code.

The prerequisite qualification for appointment as an FPO is being deemed competent under the FPO Training Course in addition to relevant forestry experience. More information is available in the *Forest Practices Officer Manual* on the FPA website.

A person who wishes to be appointed as an FPO must successfully complete a training course conducted by the FPA (section 2.3.3), which consists of a number of teaching sessions, field trips, and practical exercises in various parts of the state, and a formal examination. The training course covers legislation and implementation of the Code with an emphasis on harvesting, roading and reforestation. Specialist subjects include biodiversity, soils and water, geomorphology, cultural heritage, fire management, compliance and visual landscape. Attendance at periodic refresher courses is compulsory.

During 2019–20, four FPOs were appointed by the Board of the FPA, four FPOs (Inspecting) were delegated authority and changed status to FPO (Planning) and six FPO (Planning) were delegated additional authority for quarry FPPs.

There were 158 active or recently active FPOs, a decrease of 13 since last year (Table 3.4.1).

Table 3.4.1 Forest Practices Officers[1] in 2019–20 compared to previous years

FPO (Planning)

	As at 30/6/18	As at 30/6/19	As at 30/6/20
Industry	40	39	38
Independent consultants	25	25	19
Sustainable Timber Tasmania	24	26	25
FPA	2	2	2
Private Forests Tasmania	3	3	3
Other government	2	3	1
Other (currently inactive)	0	10	7
Total FPO (Planning)	**96**	**108**	**95**

FPO (Inspecting)

	As at 30/6/18	As at 30/6/19	As at 30/6/20
Industry	18	17	16
Independent consultants	7	6	8
Sustainable Timber Tasmania	31	26	29
FPA	3	3	4
Private Forests Tasmania	0	0	0
Other government	5	5	6
Other (currently inactive)	1	6	0
Total FPO (Inspecting)	**65**	**63**	**63**
Total (Planning and Inspecting)	**161**	**171**	**158**

1 These numbers are for active or recently active FPOs.

3.4.1 Forest Practices Officer Reference Group

The Chief Forest Practices Officer established a Forest Practices Officers Reference Group (FPORG) to facilitate direct communication between FPOs and the FPA. The group is a forum for issues that FPOs feel need addressing by the CFPO. The group meets from periodically and includes FPOs from across the forestry sector. FPA staff also attend if required.

FPORG's objectives are to:

- discuss and exchange ideas on matters relating to the role of FPOs and the operational aspects of the forest practices system (inspecting, planning and implementation)
- review and provide feedback on proposed new FPA initiatives relevant to the work of FPOs (e.g. proposed new planning tools, technical notes, training courses and field days, research and advisory work, monitoring and assessment).

FPORG meetings were held electronically due to the onset of COVID. The main issues dealt with included development of the Code of Conduct for FPOs, procedural issues around compliance reporting and suggested amendments to FPA's software for managing FPPs.

3.4.2 Disciplinary action

FPOs are a key part of the forest practices system and the FPA expects FPOs to maintain high standards. The FPA uses the *Procedure for investigating the performance of FPOs* when required. During the year there was no action taken against FPOs under this procedure.

3.5 Forest Practices Authority staff

FPA staff are highly qualified and recognised as leaders in their fields of expertise. All specialist staff have higher degree qualifications including eight PhDs. Operational staff are well-qualified with technical training on forestry related disciplines. There is diversity in personnel including gender, age and previous experience.

In accordance with DSG policies, FPA staff are encouraged to have appropriate work-life balance and to adopt the values of teamwork, excellence, integrity and respect. During the year, all FPA staff participated in training on these values and White Ribbon workshops.

FPA employees are encouraged to undertake further training appropriate to their work and are also supported to attend and present at conferences and workshops to publicise FPA's work and as part of their continuing professional development. Training was provided to staff on workplace health and safety, first aid and various professional development topics.

Table 3.5.1 Staff attached to the FPA in 2019–20

Name	Qualifications	Position
Dr Peter Volker	BSc (Forestry), GradDipSc (Forestry), MBA (Env. Mgt.), PhD, Cert IV Trainer & Assessor, Cert IV Gov Investigations (Regulatory Compliance), Dip Fraud Control	Chief Forest Practices Officer and Director
Angela Gardner	BSc, MSc (Env. Mgt.)	Executive Assistant/ Project Officer (Ecologist)
Ann La Sala (Casual, consultant)	BA (Geography and Environmental Studies)	Coordinator for *Forest Practices Code* review (until Dec 2019)
Christine Grove	BA (Hons), MSc (Forestry)	Publications Officer and Training Coordinator
Socio-economic Program		
Dr Elena Tinch	BSc, MSc, PhD	Environmental Economist
Campbell Whiteley	BBus	Graduate Analyst
Compliance Program		
Stephen Walker	A DipAppSc (Forestry), BAppSc (Comp), GradDipBA, ADipAppSc (Forestry), CertIV Gov Investigations (Regulatory Compliance), Lead Auditor Certificate	Manager Compliance (Resigned 29/11/2019). Forest Practices Advisor (contract from Jan 2020)
Aidan Flanagan	BSc, GDip (Forestry), MSc (Forestry), Cert IV Gov.Inv, LEMS Auditor	Manager Compliance (Commenced 2 Jan 2020)
James Fergusson	Dip Forest Growing & Forest Products	Forest Practices Advisor

Earth Sciences and Cultural Heritage Program		
Dr Peter McIntosh	BSc (Hons), PhD	Manager Earth Sciences and Cultural Heritage
Dr Adrian Slee	BSc (Hons), PhD	Scientific Officer (Earth Sciences)
Biodiversity Program		
Dr Sarah Munks	BSc (Hons), PhD, FAICD	Manager, Biodiversity Program (retired 17/09/19)
Anne Chuter	BSc (Hons)	Scientific Officer (Ecologist) and Acting Biodiversity Program Manager, then Biodiversity Program Manager from 14/10/19
Dr Amy Koch	BSc (Hons), PhD	Research Biologist
Dydee Mann	BSc (Hons)	Scientific Officer (Ecologist)
Jason Wiersma	BSc (Hons)	Scientific Officer (Biodiversity)
Kirsty Kay	BSc	Scientific Officer (Ecologist)
Dr Phil Bell (part-time contractor)	BSc (Hons), PhD	Ecologist
Dr Perpetua Turner (contractor)	BSc (Hons), PhD	Acting Research Biologist
Stephen Casey (part-time contractor)	BSc (Hons)	Ecologist
Shavawn Donoghue (part-time contractor)	BSc (Geology), GradDip (Hons), PhD	Treefern Research Officer (02/08/18 to 30/04/20)
Business Support		
Angus MacNeil	BSc (Hons), GAICD	Business Manager
Adrienne Liddell	Cert IV Small Business Management (NEIS)	Administration Assistant
Julie Walters		GIS Database and Systems Support Officer
Michael Bridge	Adv. Dip. Business Mgt, Dip. Business (Human Resources), Dip. Frontline Mgt	Business Support Officer

3.6 Forest Practices Tribunal

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

- An applicant for a PTR may appeal against the refusal of the PTR
- A prescribed person may appeal against the granting of a PTR
- An applicant for an FPP may appeal against the refusal, amendment or variation of the plan
- A person served a notice under s. 41 of the Act may appeal against the notice
- A person who has lodged a three-year plan may appeal if the FPA varies or refuses the three-year plan.

Members of the tribunal are appointed by the Governor of Tasmania in accordance with s. 34(2) of the Act.

During 2019–20 the Chief Chairperson of the Tribunal was Mr KAM Pitt QC and Deputy Chief Chairperson was Mr Andrew Walker.

Hearings of individual appeals are conducted by a panel of three, comprising the Chief Chairperson or Deputy Chief Chairperson and one member appointed by the Chairman from each of two categories under s. 34(2) of the Act, depending upon the nature of the appeal.

There were no appeals lodged during 2019–20.

The contact details for the Tribunal are as follows: Forest Practices Tribunal, C/- GPO Box 2036, HOBART 7001, Phone: 61656794 Email: rmpat@justice.tas.gov.au

3.7 Public interest disclosures and right to information requests

The *Public Interest Disclosures Act 2002* commenced on 1 January 2004. The FPA has, in accordance with the Act, prepared procedures for information disclosure which are available on the FPA website or which can be viewed at the FPA's offices during working hours.

There were no public interest disclosures this year. The right to information requests are detailed below.

Table 3.7.1 Information disclosure requests 2019–20

Source of requests	
Solicitors for clients	1
Not-for-profit	1
Total for FPA	**2**
Request status	
Decided	2
Outcome of requests	
Decided – full access (including redactions)	2
Decision time (days)	
1 – 30 days	2
Fees and charges	
Total charged	1
Waived or reduced	1
Waiving reasons	
General public interest or benefit	2

3.8 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 of the Act). The Act also provides under s. 44 that certain functions of the FPA will be paid out of money allocated by parliament. Full financial details for 2019–20 are presented in section 4 of this report (financial statements).

3.8.1 Self-funding of activities conducted by industry

The industry has self-funded the implementation of the Act by providing the following services:

- the employment and training of FPOs and other staff involved in the preparation, certification, monitoring and reporting of FPPs
- training and education of contractors and operators.

A conservative estimate of the value of the industry supporting FPOs in their duties and the training and education of contractors is in the order of $15 million per annum.

3.8.2 Self-funding of activities conducted by the Forest Practices Authority

The self-funding activities of the FPA are primarily related to the cost of the advice and services provided by FPA staff in relation to the processing of FPP applications (see section 2 of this report and the financial statements). The funding for these activities of the FPA is derived from an application fee for FPPs in accordance with s. 18 of the Act.

In addition to the direct funding of the research and advisory programs, the FPA receives income from research grants and consultancy work.

The FPA also regulates the harvesting of treeferns under a user-pays system. All treeferns must be affixed with a tag issued by the FPA prior to removal from the harvesting area. Revenue collected from the sale of treefern tags is used to cover the cost of regulatory activities and to fund further research into the long-term sustainability of harvesting treeferns. The schedules of fees for FPPs and treefern tags are detailed in the Forest Practices Regulations 2017.

The forest industry funds the FPA's regulatory functions in a co-regulatory model through employment and support of authorised FPOs. This support is estimated to be in the order of $3 million per annum.3

In accordance with s. 4E(1)(a) of the Act, the FPA reports that the forest practices system satisfied the principle of self-funding in 2019–20.

3.8.3 Funding of the Forest Practices Authority from parliament

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

- annual assessment of the forest practices system and FPPs
- preparation of the annual report to parliament under s. 4X
- detection and investigation of breaches of the Act
- laying of complaints and prosecuting offences
- payment of compensation for the refusal of PTRs
- remuneration of the Chief Forest Practices Officer
- administrative support for the Chief Forest Practices Officer
- exercise of the FPA's powers and functions.

The independent regulatory functions of the FPA in 2019–20 were funded by the income received under s. 44 of the Act.

The 2019 State Budget included new initiative funding by the Tasmanian government to assist in implementing the *Strategic Growth Plan for Tasmania's Forests, Fine Timber and Wood Fibre Industry 2017* (the Growth Plan) developed by the Ministerial Advisory Council on Forestry.

The new initiative funding includes $500 000 per annum provided to the FPA for four years to improve forestry related socio-economic data and its consideration in decisions related to forest practices regulation.

The funds have been provided to the FPA for two components:

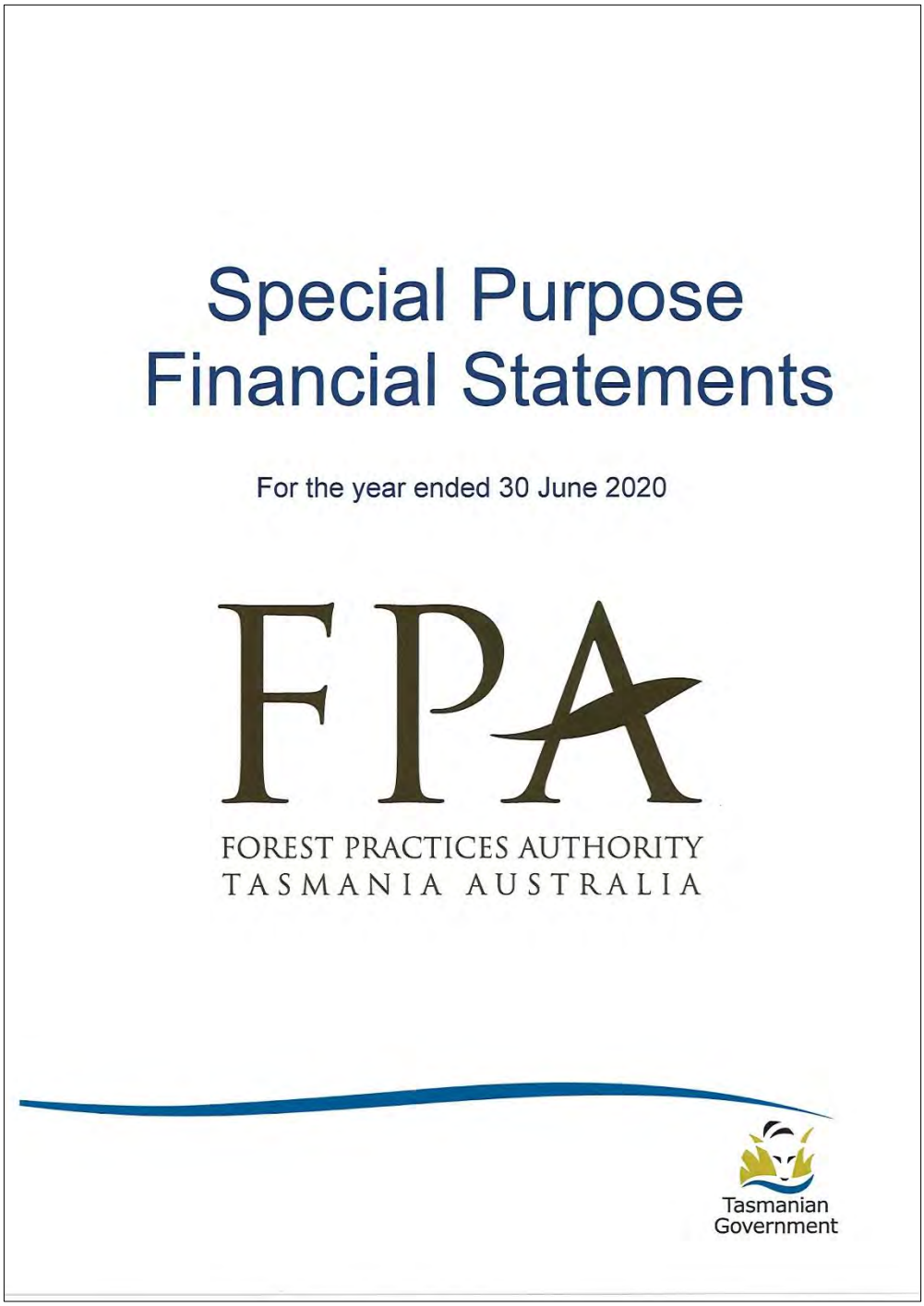
1. Concerns from stakeholders that they are not properly informed in relation to potential socio-economic impacts of any proposed new or altered management prescriptions in the forest practices system, when advice is sought through advisory groups such as the FPAC; and
2. Government and industry desire to understand the cost effectiveness of existing management prescriptions within the forest practices system, with a view to ensuring that good environmental outcomes continue to be delivered in the most cost-effective way.

Activities of this program are outlined in section 2.3 of this report.

3.8.4 Register of grants received from industry

Source of funding	Project title	Date funding received	Amount received Aus $
Forest and Wood Products Australia	Monitoring the effectiveness of the Tasmanian *Forest Practices Code* for biodiversity	22/11/19	29 593

4 Financial statements for the year ended 30 June 2020



CERTIFICATION OF FINANCIAL STATEMENTS

The accompanying Special Purpose Financial Statements of the Forest Practices Authority (FPA) are in agreement with the relevant accounts and records and have been prepared in compliance with section 4X of the *Forest Practices Act 1985* to present fairly the financial transactions for the year ended 30 June 2020 and the financial position as at the end of the year.

The FPA has decided it is appropriate to prepare Special Purpose Financial Statements, on the basis outlined in policy note 8.2, because there are no relevant users dependent on general purpose financial information.

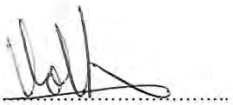
At the date of signing, we are not aware of any circumstances which would render the particulars included in the Financial Statements misleading or inaccurate.

.....

John Ramsay

CHAIR – FOREST PRACTICES AUTHORITY

12 October 2020



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Peter Volker

CHIEF FOREST PRACTICES OFFICER

12 October 2020

Forest Practices Authority

Statement of Comprehensive Income for the year ended 30 June 2020

	Notes	2020 $'000	2019 $'000
Continuing operations			
Revenue and other income from transactions			
Grants and Industry contributions	1.1	2,057	2,077
Sales of goods and services	1.2	957	926
Fees and fines		60	99
Interest		44	64
Other revenue		22	...
Total revenue and other income from transactions		**3,140**	**3,166**
Expenses from transactions			
Employee benefits	2.1(a)	1,897	1,958
Superannuation	2.1(b)	223	228
Depreciation and amortisation	2.2	3	3
Supplies and consumables:			
Consultants		498	459
Property services		40	24
Communications		17	22
Information technology		74	66
Travel and transport		110	159
Advertising and Promotion		3	...
Operating lease costs		80	84
Audit fees – financial audit		3	3
Audit fees – internal audit		...	7
Other supplies and consumables	2.3	226	294
Other expenses		2	51
Total expenses from transactions		**3,176**	**3,358**
Net result from transactions (net operating balance)		**(36)**	**(192)**
Comprehensive result		**(36)**	**(192)**

This Statement of Comprehensive Income should be read in conjunction with the accompanying notes.

Forest Practices Authority

Statement of Financial Position as at 30 June 2020

	Notes	2020 $'000	2019 $'000
Assets			
Financial assets			
Cash and deposits	6.1	1,157	478
Financial Investments		1,000	1,750
Receivables	3.1	81	52
Other financial assets	3.2	104	96
Non-financial assets			
Prepayments		30	16
Plant & equipment	3.3	8	11
Total assets		**2,380**	**2,403**
Liabilities			
Payables		35	35
Employee benefits	4.1	415	407
Other liabilities		9	4
Total liabilities		**459**	**446**
Net assets		**1,921**	**1,957**
Equity			
Accumulated funds		1,921	1,957
Total equity		**1,921**	**1,957**

This Statement of Financial Position should be read in conjunction with the accompanying notes.

Forest Practices Authority

Statement of Cash Flows for the year ended 30 June 2020

	Notes	2020 $'000 Inflows (Outflows)	2019 $'000 Inflows (Outflows)
Cash flows from operating activities			
Cash inflows			
Grants and Industry contributions		2,063	2,047
Other cash receipts		1,132	1,207
Total cash inflows		**3,195**	**3,254**
Cash outflows			
Employee benefits		(2,113)	(2,165)
Other cash payments		(1,153)	(1,235)
Total cash outflows		**(3,266)**	**(3,400)**
Net cash from operating activities	6.2	**(71)**	**(146)**
Cash flows from investing activities			
Cash inflows			
Proceeds from maturing Term Deposits		1,750	1,560
Total cash inflows		**1,750**	**1,560**
Cash outflows			
Investment in long Term Deposits		(1,000)	(1,750)
Total cash outflows		**(1,000)**	**(1,750)**
Net cash used by investing activities		**750**	**(190)**
Net increase in cash held and cash equivalents		**679**	**(336)**
Cash and deposits at the beginning of the reporting period		**478**	**814**
Cash and deposits at the end of the reporting period	6.1	**1,157**	**478**

This Statement of Cash Flows should be read in conjunction with the accompanying notes.

Forest Practices Authority

Statement of Changes in Equity for the year ended 30 June 2020

	Accumulated funds $'000	Total equity $'000
Balance as at 1 July 2019	**1,957**	**1,957**
Total comprehensive result	(36)	(36)
Balance as at 30 June 2020	**1,921**	**1,921**

	Accumulated funds $'000	Total Equity $'000
Balance as at 1 July 2018	**2,149**	**2,149**
Total comprehensive result	(192)	(192)
Balance as at 30 June 2019	**1,957**	**1,957**

This Statement of Changes in Equity should be read in conjunction with the accompanying notes.

Note 1 Income from transactions

Income is recognised in the Statement of Comprehensive Income when an increase in future economic benefits related to an increase in an asset or a decrease of a liability has arisen that can be measured reliably.

1.1 Grants

Grants are recognised as revenue when the FPA gains control of the underlying assets. Where grants are reciprocal, revenue is recognised as performance occurs under the grant.

Non-reciprocal grants are recognised as revenue when the grant is received or receivable. Conditional grants may be reciprocal or non-reciprocal depending on the terms of the grant.

	2020 $'000	2019 $'000
Grants and industry contributions		
Recurrent grants from the Tasmanian Government	1,533	1,503
Socio-economic Data Project grant	500	500
Other non-government grants	24	74
Total	**2,057**	**2,077**

The FPA has received an additional grant of $500,000 per year for a period of four years, to fund projects associated with socioeconomic review.

1.2 Sales of goods and services

Amounts earned in exchange for the provision of goods are recognised when the significant risks and rewards of ownership have been transferred to the buyer. Revenue from the provision of services is recognised in proportion to the stage of completion of the transaction at the reporting date. The stage of completion is assessed by reference to surveys of work performed.

	2020 $'000	2019 $'000
Fern Tree Tag Sales	26	21
Recovery of Training and publication costs	17	19
Plan Fees	822	782
Consultancy fees	87	101
Sales of Services Other	5	3
Total	**957**	**926**

Note 2 Expenses from transactions

Expenses are recognised in the Statement of Comprehensive Income when a decrease in future economic benefits related to a decrease in asset or an increase of a liability has arisen that can be measured reliably.

2.1 Employee benefits

Employee benefits include, where applicable, entitlements to wages and salaries, annual leave, sick leave, long service leave, superannuation and any other post-employment benefits.

	2020 $'000	2019 $'000
(a) Employee benefits		
Wages and salaries (includes Director Fees of $154,000 (2019 $154,000)	1,608	1,677
Annual Leave	109	138
Long service leave	43	53
Fringe Benefits Tax	10	10
Other Employee Expenses	127	80
Total Employee benefits	**1,897**	**1,958**
(b) Superannuation		
Superannuation	**223**	**228**

Superannuation expenses relating to defined benefit schemes relate to payments into the Public Account. The amount of the payment is based on a department contribution rate determined by the Treasurer, on the advice of the State Actuary. The current department contribution is 12.95 per cent (2019: 12.95 per cent) of salary.

Superannuation expenses relating to defined contribution schemes are paid directly to superannuation funds at a rate of 9.5 per cent (2019: 9.5 per cent) of salary. In addition, departments are also required to pay into the Public Account a "gap" payment equivalent to 3.45 per cent (2019: 3.45 per cent) of salary in respect of employees who are members of contribution schemes.

(c) Remuneration of key management personnel

	Short-term benefits		Long-term benefits			
2020	Salary	Other Benefits	Super-annuation	Other Benefits & Long-Service Leave	Termination Benefits	Total
	$'000	$'000	$'000	$'000	$'000	$'000
Key management personnel						
John Ramsay, Chair	39	...	4	...	...	43
Cheryl Arnol, Board Member	23	...	2	...	...	25
John Hickey, Board Member	23	...	2	...	...	25
Alexander Schaap, Board Member	23	...	2	...	...	25
David Gatenby, Board Member	23	...	2	...	...	25
Amy Robertson, Board Member	23	...	2	...	...	25
Peter Volker, Chief Forest Practices Officer	164	13	16	3	...	196
Total	**318**	**13**	**30**	**3**	**...**	**364**

2019	Short-term benefits		Long-term benefits			
	Salary	Other Benefits	Super-annuation	Other Benefits & Long-Service Leave	Termination Benefits	Total
	$'000	$'000	$'000	$'000	$'000	$'000
Key management personnel						
John Ramsay, Chair	39	...	4	...	...	43
Cheryl Arnol, Board Member	23	...	2	...	...	25
John Hickey, Board Member	23	...	2	...	...	25
Alexander Schaap, Board Member	23	...	2	...	...	25
David Gatenby, Board Member	23	...	2	...	...	25
Amy Robertson, Board Member	23	...	2	...	...	25
Peter Volker, Chief Forest Practices Officer	159	12	15	13	...	199
Total	313	12	29	13	...	367

Key management personnel are those persons having authority and responsibility for planning, directing and controlling the activities of the agency, directly or indirectly, those being the Board of Directors and Chief Forest Practices Officer.

Remuneration during 2019-20 for key personnel is set by the *State Service Act 2000.* Remuneration and other terms of employment are specified in employment contracts. Remuneration includes salary, motor vehicle and other non-monetary benefits. Long-term employee expenses include long service leave and superannuation obligations.

Acting Arrangements

When members of key management personnel are unable to fulfil their duties, consideration is given to appointing other members of senior staff to their position during their period of absence. Individuals are considered members of key management personnel when acting arrangements are for more than a period of one month.

(d) Related party transactions

There are no material related party transactions requiring disclosure.

2.2 Depreciation

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

The following table details the asset lives, and depreciation rates and the methods for the various classes of assets employed in the current and previous reporting periods. Asset useful lives depreciation methods are reviewed annually and adjusted according to the expected rate and/or pattern of consumption, asset condition, and industry best practice. Depreciation methods as detailed below have not changed since the previous reporting period.

Asset	Estimated Useful Life (years)	Depreciation Rate (per annum)	Method
Plant and Equipment	5	20.00%	Straight Line
Computer equipment	3	33.33%	Straight Line

	2020 $'000	2019 $'000
Depreciation	3	3
Total	**3**	**3**

2.3 Other supplies and consumables

	2020 $'000	2019 $'000
Printing, publications and training costs	18	16
Contract labour	...	...
Contracted and professional services	55	109
Scientific supplies and services	14	35
Equipment purchases	...	29
Scholarships and grants awarded	67	7
Subscriptions and corporate memberships	51	50
Miscellaneous expenses	21	48
Total	**226**	**294**

Note 3 Assets

Assets are recognised in the Statement of Financial Position when it is probable that the future economic benefits will flow to the FPA and the asset has a cost or value that can be measured reliably.

3.1 Receivables

Receivables are recognised at amortised cost, less any impairment losses, however, due to the short settlement period, receivables are not discounted back to their present value. Impairment losses are recognised when there is an indication that there is a measurable decrease in the collectability of receivables.

For trade receivables, the FPA applies a simplified approach in calculating expected credit losses. The Department recognises a loss allowance based on lifetime expected credit losses at each reporting date (of which there were none).

	2020 $'000	2019 $'000
Receivables	81	52
Less: Provision for impairment	...	...
Total	**81**	**52**
Sales of goods and services (inclusive of GST)	67	44
GST refund receivable	14	8
Total	**81**	**52**
Settled within 12 months	81	52
Total	**81**	**52**

3.2 Other financial assets

Other financial assets are to be classified and measured at amortised cost. Impairment losses are recorded in the Statement of Comprehensive Income (of which there are none).

	2020 $'000	2019 $'000
Accrued revenue	92	66
Accrued interest	12	30
Total	**104**	**96**
Settled within 12 months	104	96
Total	**104**	**96**

3.3 Plant and equipment

(a) Carrying amount

	2020 $'000	2019 $'000
Plant and equipment		
At cost	15	15
Less: Accumulated depreciation	(7)	(4)
Total	**8**	**11**

(b) Reconciliation of movements

Reconciliations of the carrying amounts of each class of plant and equipment at the beginning and end of the current and previous financial year are set out below.

	2020 $'000	2019 $'000
Carrying amount at 1 July	**11**	**14**
Additions	...	...
Less: Annual Depreciation	(3)	(3)
Carrying amount at 30 June	**8**	**11**

Note 4 Liabilities

Liabilities are recognised in the Statement of Financial Position when it is probable that an outflow of resources embodying economic benefits will result from the settlement of a present obligation and the amount at which the settlement will take place can be measured reliably.

4.1 Employee benefits

Liabilities for wages and salaries and annual leave are recognised when an employee becomes entitled to receive a benefit. Those liabilities expected to be realised within 12 months are measured as the amount expected to be paid. Other employee entitlements are measured as the present value of the benefit at 30 June 2020, where the impact of discounting is material, and at the amount expected to be paid if discounting is not material.

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. 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.

A liability for on-costs (workers compensation premiums) is recognised and disclosed as part of Other Liabilities. On-costs are not classified as an employee benefit.

	2020 $'000	2019 $'000
Accrued salaries	28	17
Annual leave	129	151
Long service leave	258	239
Total	**415**	**407**
Settled within 12 months	184	194
Settled in more than 12 months	231	213
Total	**415**	**407**

Note 5 Commitments and Contingencies

5.1 Schedule of Commitments

	2020 $'000	2019 $'000
By type		
Lease Commitments		
Other leases	79	18
Total lease commitments	**79**	**18**
By maturity		
Other lease commitments		
One year or less	44	18
From one to five years	35	...
More than five years	...	...
Total other lease commitments	**79**	**18**
Total	**79**	**18**

NB: Commitments are shown as GST exclusive.

Major office accommodation and vehicles are recorded under AASB 16 within the Department of Treasury financial statements and as such remain lease expenses within FPA accounts.

The FPA has entered into a number of lease agreements for property, plant and equipment, where the lessors effectively retain all the risks and benefits incidental to ownership of the items leased. Equal instalments of lease payments are charged to the Statement of Comprehensive Income over the lease term, as this is representative of the pattern of benefits to be derived from the leased property.

The majority of FPA leases are represented by building rental costs and vehicle lease costs. The total lease commitment excludes local government and other executory costs where they are paid directly to a party other than the lessor. These costs are included elsewhere in the FPA's expenditures.

The FPA also has entered into contingent rental arrangements. Contingent rental costs relate to land and building leases, and in the main comprise local government charges and the periodic escalation of leases by the Consumer Price Index. Since Contingent Rentals cannot be reliably determined, they have been excluded in the calculations of Total Lease Commitments.

The FPA does not have any purchase rights flowing from the lease of the land and buildings. Some buildings have renewal options exercisable by the lessee. There are no building leases that have renewal rights exercisable at the sole discretion of the lessor.

The minimum lease payment for vehicles is based on the average age of the vehicle fleet and a standard lease period of 36 months.

5.2 Contingent Assets and Liabilities

Contingent assets and liabilities are not recognised in the Statement of Financial Position due to uncertainty regarding the amount or timing of the underlying claim or obligation.

(a) Quantifiable contingencies

A quantifiable contingent asset is a possible asset that arises from past events and whose existence will be confirmed only by the occurrence or non-occurrence of one or more uncertain future events not wholly within the control of the entity.

A quantifiable contingent liability is a possible obligation that arises from past events and whose existence will be confirmed only by the occurrence or non-occurrence of one or more uncertain future events not wholly within the control of the entity; or a present obligation that arises from past events but is not recognised because it is not probable that an outflow of resources embodying economic benefits will be required to settle the obligation.

The FPA has not identified any quantifiable contingent assets or quantifiable contingent liabilities as at 30 June 2020.

(b) Unquantifiable Contingencies

As at 30 June 2020, there were no unquantifiable contingent liabilities.

Note 6 Cash Flow Reconciliation

Cash means notes, coins, any deposits held at call with a bank or financial institution, as well as funds held in Specific Purpose Accounts. Deposits are recognised at amortised cost, being their face value.

6.1 Cash and deposits

Cash and deposits includes the balance of Specific Purpose Accounts held by FPA, and other cash held, excluding those accounts which are administered or held in a trustee capacity or agency arrangement.

	2020 $'000	2019 $'000
Specific Purpose Account balance	526	53
Total Specific Purpose Accounts	**526**	**53**
Short Term Deposits:		
Tascorp	631	425
Total Short Term Deposits	**631**	**425**
Total Cash and deposits	**1,157**	**478**

The FPA also holds $1 million (2019 $1.75 million) in term deposits held for periods greater than three months. These do not meet the classification requirements of Cash under accounting standard AASB 107 and therefore have been excluded from the above balance.

6.2 Reconciliation of Net Result to Net Cash from Operating Activities

	2020 $'000	2019 $'000
Net result	(36)	(192)
Depreciation and amortisation	3	3
Decrease (increase) in Receivables	(29)	(11)
Decrease (increase) in other financial assets	(8)	(13)
Decrease (increase) in other non-financial assets	(17)	(8)
Increase (decrease) in Employee entitlements	15	68
Increase (decrease) in Payables	(1)	20
Increase (decrease) in other liabilities	2	(13)
Net cash from (used by) operating activities	**(71)**	**(146)**

Note 7 Events Occurring After Balance Date

There have been no events subsequent to balance date which would have a material effect on the FPA's Financial Statements as at 30 June 2020.

Note 8 Other Significant Accounting Policies and Judgements

8.1 Objectives and Funding

The FPA is a body corporate, established by the *Forest Practices Act 1985.*

The role of the FPA is to advance the objective of the State's forest practices system and to foster a cooperative approach towards policy development and management. The FPA 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 FPA 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.*

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

Self-funding Activities

These activities comprise:

(a) the planning and supervision activities undertaken by private and industry Forest Practices Officers; and

(b) the Research and Advisory program which is funded by fees for forest practices plans. Other revenue received is primarily for Tree Fern Tag sales, the recovery of training and publication costs, consultancies undertaken and grants.

The FPA reports in accordance with Section 4E(1)(a) of the *Forest Practices Act 1985* that the forest practices system in 2019-20 satisfied the principle of self-funding.

Independent Regulation Activities

These activities are primarily supported by State Government funding and relate to administration, independent monitoring and investigations into the standards of planning and implementation of forest practices plans and compliance with the Act. Fines collected by the FPA relate to penalties imposed under s.47B of the *Forest Practices Act 1985.*

In accordance with s.44(1) of the *Forest Practices Act 1985* the FPA reports on the costs and expenses incurred from the funds provided by Parliament.

8.2 Basis of Accounting

As there are no users dependent on a general purpose financial report, the financial statements are therefore a special purpose financial report that has been prepared in order to meet the financial reporting obligations of the FPA.

These Special Purpose Financial Statement have been prepared in accordance with the recognition and measurement requirements specified by the Australian Accounting Standards and Interpretations and the disclosure requirements of:

- AASB 101 'Presentation of Financial Statements'
- AASB 107 'Statement of Cash Flow'
- AASB 108 'Accounting Policies, Changes in Accounting Estimates and Errors'
- AASB 1048 'Interpretation and Application of Standards'
- AASB 13 'Fair Value Measurement' and AASB 116 'Property Plant and Equipment'.

The capacity of the FPA to continue the level of current operations is dependent on the future income which consists of government appropriation, application fees and other sources of income. The substantial in-kind contribution by the forestry sector to support forest practices offices in a co-regulatory environment is also acknowledged.

8.3 Functional and Presentation Currency

These Financial Statements are presented in Australian dollars, which is the FPA's functional currency.

8.4 Rounding

All amounts in the Financial Statements have been rounded to the nearest thousand dollars, unless otherwise stated.

8.5 Taxation

The FPA is exempt from all forms of taxation except Fringe Benefits Tax and the Goods and Services Tax.

8.6 Goods and Services Tax

Revenue, expenses and assets are recognised net of the amount of Goods and Services Tax (GST), except where the GST incurred is not recoverable from the Australian Taxation Office. Receivables and payables are stated inclusive of GST. The net amount recoverable, or payable, to the ATO is recognised as an asset or liability within the Statement of Financial Position.

In the Statement of Cash Flows, the GST component of cash flows arising from operating, investing or financing activities which is recoverable from, or payable to, the Australian Taxation Office is, in accordance with the Australian Accounting Standards, classified as operating cash flows.

Tasmanian Audit Office

Independent Auditor's Report

To Members of the Forest Practices Authority

Report on the Audit of the Special Purpose Financial Report

Opinion

I have audited the accompanying financial report, being a special purpose financial report of the Forest Practices Authority (the Authority), which comprises the statement of financial position as at 30 June 2020, the statements of comprehensive income, changes in equity and cash flows for the year then ended, notes to the financial statements including a summary of significant accounting policies and other explanatory information and the statement of certification by the directors.

In my opinion, the financial report presents fairly, in all material respects, the financial position of the Authority as at 30 June 2020, and its financial performance and cash flows for the year then ended in accordance with the financial reporting requirements of Section 4X of the *Forest Practices Act 1985.*

Basis for Opinion

I conducted the audit in accordance with Australian Auditing Standards. My responsibilities under those standards are further described in the *Auditor's Responsibilities for the Audit of the Financial Report* section of my report. I am independent of the Authority in accordance with the ethical requirements of the Accounting Professional and Ethical Standards Board's APES 110 *Code of Ethics for Professional Accountants (including Independence Standards)* (the Code) that are relevant to my audit of the financial report in Australia. I have also fulfilled my other ethical responsibilities in accordance with the Code.

The *Audit Act 2008* further promotes the independence of the Auditor-General. The Auditor-General is the auditor of all Tasmanian public sector entities and can only be removed by Parliament. The Auditor-General may conduct an audit in any way considered appropriate and is not subject to direction by any person about the way in which audit powers are to be exercised. The Auditor-General has for the purposes of conducting an audit, access to all documents and property and can report to Parliament matters which in the Auditor-General's opinion are significant.

I believe that the audit evidence I have obtained is sufficient and appropriate to provide a basis for my opinion.

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Emphasis of Matter - Basis of Accounting

I draw attention to Note 8.2 to the financial report, which describes the basis of accounting. The financial report has been prepared to assist the Authority to meet the financial reporting requirements of the *Forest Practices Act 1985*. As a result, the financial report may not be suitable for another purpose. My opinion is not modified in respect of this matter.

Responsibilities of the Directors for the Financial Report

The directors are responsible for the preparation and fair presentation of the financial report in accordance with the financial reporting requirements of the *Forest Practices Act 1985* and for such internal control as they determine is necessary to enable the preparation and fair presentation of a financial report that is free from material misstatement, whether due to fraud or error.

In preparing the financial report, the directors are responsible for assessing the Authority's ability to continue as a going concern, disclosing, as applicable, matters relating to going concern and using the going concern basis of accounting unless the Authority is to be dissolved by an Act of Parliament, or the directors intend to cease operations, or have no realistic alternative but to do so.

Auditor's Responsibilities for the Audit of the Financial Report

My objectives are to obtain reasonable assurance about whether the financial report as a whole is free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes my opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with the Australian Auditing Standards will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of this financial report.

As part of an audit in accordance with the Australian Auditing Standards, I exercise professional judgement and maintain professional scepticism throughout the audit. I also:

- Identify and assess the risks of material misstatement of the financial report, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for my opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Authority's internal control.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by the directors.
- Conclude on the appropriateness of the directors' use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Authority's

...2 of 3

ability to continue as a going concern. If I conclude that a material uncertainty exists, I am required to draw attention in my auditor's report to the related disclosures in the financial report or, if such disclosures are inadequate, to modify my opinion. My conclusion is based on the audit evidence obtained up to the date of my auditor's report. However, future events or conditions may cause the Authority to cease to continue as a going concern.

- Evaluate the overall presentation, structure and content of the financial report, including the disclosures, and whether the financial report represents the underlying transactions and events in a manner that achieves fair presentation.

I communicate with the directors regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that I identify during my audit.

Ric De Santi
Deputy Auditor-General
Delegate of the Auditor-General

Tasmanian Audit Office

20 October 2020
Hobart

Appendix 1
Publications, reports and presentations by staff or associates of the FPA

Staff or associates of the FPA are indicated in bold type.

Published journal articles and books

Baker, SC, **Chuter, A**, Munks, SA and **Koch, AJ** 2020, 'Retention of large, old trees in alternatives to clearcutting with a comparison of ground- and helicopter-based assessments', *Forest Ecology and Management* 475, 118390.

Burke, B, Slee, A, McIntosh, PD, Hofmann, H, and Shulmeister, J 2020, 'A reactivated cave system induces rapidly developing cover-collapse sinkholes in Tasmania, Australia', *Journal of Cave and Karst Studies* 82(1), 31-50

Cisterne, A, Crates, R, **Bell, P**, Heinsohn, R, Stojanovic, D 2020, 'Occupancy patterns of an apex avian predator across a forest landscape', *Austral Ecology* 45, 823–833.

McIntosh, PD, Hardcastle, JL, Klöffel, T, Moroni, M and Santini, C 2020, 'Can carbon sequestration in southeast Australian 'wet' eucalypt forests be used to mitigate climate change? – Forest succession, the buffering effects of soils and landscape processes must be taken into account', *International Journal of Forest Research*. https://doi.org/10.1155/2020/6509659.

Munks, SA, Chuter, AE and Koch, AJ 2020, '"Off-reserve"' management in practice: Contributing to conservation of biodiversity over 30 years of Tasmania's forest practices system', *Forest Ecology and Management* vol 465, https://doi.org/10.1016/j.foreco.2020.117941.

Sam, N, Nimiago, P, **McIntosh, P**, Wang, N, 2020, 'Markham River floodplain sediments reveal last glacial maximum erosion in Papua New Guinea uplands followed by landscape stability', *Quaternary Australasia* 37, 19–20.

Slee, AJ and **McIntosh, PD** 2019, 'Are the orthoquartzite towers and caves on the Borradaile Plains, Tasmania, formed by dissolution and arenisation?', *Helictite*, 45: 27-37.

Slee, A, McIntosh, PD, Webb, J, Sharples, C and Williams, K 2019, 'Managing geomorphic values within Tasmanian plantations on karst terrain', *Australian Forestry* 82(3):127–138.

Wapstra, M and **Chuter, A** 2019, 'Response of *Pterostylis atriola* (snug greenhood) to forestry disturbance in Tasmania', *The Orchadian* vol 19(9), pp 395-406.

Young, D, **Bell, PJ** and Mooney, N 2020, 'Home range, habitat use and diet of the Tasmanian masked owl *Tyto novaehollandiae castanops*', *Australian Field Ornithology*, 132–140.

Newsletter and magazine articles

Chuter, A and **Gardner, A** 2019 'The Biodiversity Values Database has a new look', *Forest Practices News,* vol 14 no 3, p 21.

Gardner, A 2019 'Forest Practices Awards 2019', *Forest Practices News,* vol 14 no 3, p 1.

Grove, C 2019 'Sarah Munks: moving on from the FPA', *Forest Practices News,* vol 14 no 3, p 14–18.

Kay, K 2019 'Tas Herbarium brings Tasmania's flora into the 21st Century', *Forest Practices News,* vol 20.

Kay, K 2019 'The plight of two little brown bird species', *Forest Practices News,* vol 14 no 3, p 24.

Kay, K 2019 'Tasmanian black gum – Brookers gum forest and woodland ecological community listed as Critically Endangered', *Forest Practices News,* vol 14 no 3, p 28.

Koch, A 2019 'FPA Research Update 2019', *Forest Practices News,* vol 14 no 3, p 11.

Koch, A 2019 'Eagle expert emerges', *Forest Practices News,* vol 14 no 3, p 13.

Mann, D and **Volker, P** 2019 'Cable harvesting field trip', *Forest Practices News,* vol 14 no 3, p 22–23.

McIntosh, P 2019 'Ecosystem carbon project – a brief update', *Forest Practices News,* vol 14 no 3, p 19.

Whiteley, C 2019 'Money does grow on trees – joint FPA and PFT field day', *Forest Practices News,* vol 14 no 3, p 27.

Reports and technical notes

Koch, A 2019, *Monitoring the effectiveness of the biodiversity provisions of the Tasmanian* Forest Practices Code *2019–20 summary report*, report for the Board of the FPA and the Secretary of the DPIPWE, Forest Practices Authority Scientific Report 28, Hobart, Tasmania. Available on FPA website

Slee, A 2019, *A reconnaissance survey of the Trowutta-Sumac karst*, Forest Practices Authority Scientific Report 25, Forest Practices Authority, Hobart, 49 p.

Consultancy reports

McIntosh, PD 2019, Final Narrative and Financial report for LoA/RAP/2018/06: 'Training and assistance on quality control, scientific analysis and report writing of soil survey in PNG's first national forest inventory', Report to FAO, 19 p.

Conference presentations, abstracts and posters

Chuter, A, Koch, A and **Munks S** 2019, 'Managing biodiversity across the landscape: an approach developed for the Tasmanian forest practices system', *IUFRO conference,* Brazil, October 2019.

Chuter, A 2019, 'Threatened plant adviser: a decision support system for managing threatened flora species within the Tasmanian forest practices system', *IUFRO conference,* Brazil, October 2019.

Gardner, A, **Chuter, A** and Wapstra, M 2019, 'Using species distribution models to manage and conserve threatened flora in Tasmania's production forests', *Ecological Society of Australia conference,* Launceston, November 2019.

Klőffel, T, McIntosh, PD and Müller, CW 2019, 'Comparison of topsoil and subsoil organic matter quality under mixed eucalypt and old-growth rainforests in Tasmania', presented paper, *EGU conference,* Vienna.

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Klőffel, T 2019, 'Comparison of soil organic matter quality under wet eucalypt and old-growth rainforests in Tasmania', Masters Thesis, Technical University of Munich.

Pay, J 2019, 'Investigating the conservation requirements of the endangered Tasmanian wedge-tailed eagle (*Aquila audax fleayi*)', PhD thesis, University of Tasmania.

Appendix 2
Major reference documents related to forest practices

General	
Forest Practices Act 1985	1985
Forest Practices Regulations 2017	2017
Forest Practices Code 2015	2015
Forest Practices News	Twice yearly since 1998
A guide to planning approvals for forestry in Tasmania	2006, revised 2007, 2011, 2015, 2016, 2020
State of the forests reports	Every five years, latest in 2017
Cultural	
Procedures for managing Aboriginal cultural heritage when preparing FPPs	2015
Procedures for managing historic cultural heritage when preparing FPPs	2015, 2017
Visual management topic papers on skyline and roadside management	2006 onwards
Earth sciences	
Atlas of Tasmanian Karst	1995
Basalt talus guidelines and Dolerite talus guidelines	2002
Forest Sinkhole Manual and Forest operations around sinkholes	2002 and 2014
Forest soils fact sheet keys	From 2002
Forest Soils of Tasmania	1996
Guidelines for the protection of class 4 streams	2004, updated 2011
The Strahan guidelines	2017
Biodiversity	
Biodiversity Values Database	1995, 1998, 2000 updated in 2020
Fauna Technical Note series	1996 onwards
Flora Technical Note Series	1996 onwards
Forest Practices Botany Manuals	1991–2005
Permanent Native Forest Estate Policy	1996, revised 2014, 2015 and 2016, 2017
Planning guideline (2008/1) – to avoid the clearance of significant habitat for threatened fauna	2008 onwards
Threatened Fauna Adviser	2014
Habitat Context Assessment Tool	2012
Biodiversity landscape planning guideline	2017
Compliance	
Forest Practices Officer Manual	2015, 2017
Investigation and Enforcement Protocols	2016
Monitoring and Assessment Protocols	2009

Appendix 3
Results of the 2019–20 assessment of forest practices plans

The scoring system used for all questions in the assessment of FPPs

Performance Rating	Description	Score
Sound	Addressed all judgment criteria and achieved an acceptable result.	**3.0**
Below sound	Have not addressed all judgment criteria and/or implemented plan as prescribed, which may result in adverse impact.	**2.0**
Unacceptable	Non-compliant and has not adequately addressed judgment criteria or achieved an unacceptable result.	**1.0**
Not assessable	• The condition/situation does not occur e.g. high erodibility • Operations have not commenced • Insufficient or no objective evidence to make a judgment	**NA**

Results of the 2019–20 assessment of FPPs

Procedural issues	Quarrying Scores				NIPF Scores			
	Unacceptable	Below Sound	Sound	Grand Total	Unacceptable	Below Sound	Sound	Grand Total
1. Has a complete copy of the original FPP and variations been made available to the assessor?			11	11			18	18
2. Had the FPP and any variations been uploaded to Coverpage?	2	1	8	11	3	3	12	18
3. Has the FPP, including variations, been fully signed and dated?	2	5	4	11		6	12	18
4. Are the FPP and variations in accordance with the Code?	4	5	2	11	3	5	10	18
5. Were State and local governments consulted, as required, and were resulting management conditions incorporated into the FPP or variation?			11	11			18	18
6. Was local government notified of the operational start date?		4	7	11			18	18
7. Have all adjacent landowners been identified and notified?			11	11		2	16	18
8. Does the FPP indicate that a fire management plan was prepared where necessary?			2	2		2	16	18
9. Have compliance reports on Discrete Operational Phases been completed, where required?		2	8	10	6	3	6	15
10. Is the FPP map clear?	5	3	3	11	1	8	9	18
Grand Total	**13**	**20**	**67**	**100**	**13**	**29**	**135**	**177**

Results of the 2019–20 assessment of FPPs (continued)

Roading	Quarrying Scores				NIPF Scores			
	Unacceptable	Below Sound	Sound	Grand Total	Unacceptable	Below Sound	Sound	Grand Total
Planning and location								
11. Have roads been located to minimise soil erosion and stream sedimentation?							4	4
12. Where roads are located in proximity to streams, has the potential for stream sedimentation been minimised?					1		2	3
13. Where roads are located in areas of high or very high soil erodibility, have precautions to reduce erosion been taken?							1	1
Road standard								
14. Has the road standard proven adequate to the haulage task, and been sufficiently compacted or continuously repaired to avoid environmental problems?			11	11		1	14	15
Drainage								
15. Have road drainage measures been effective?		3	8	11	1	3	9	13
Access Tracks								
16. Have access tracks been suitably located, drained, and stabilised after use?						1	8	9
Earthworks								
17. Are cuts and fills balanced and/or spoil disposed of properly?							4	4
18. Are batter slopes stable?							4	4
Steep Country								
19. Have Code statements been followed on steep country							1	1
Clearing								
20. Has clearing width and topsoil stripping been minimised?						1	3	4
Crossings								
21. Have new or upgraded stream crossings been suitably located, designed and constructed?					1		1	2
22. Have temporary crossings been confined to class 3 and 4 and dry class 2 watercourses and been properly removed and drained or upgraded?								
Road upgrading and closure								
23. Have all roads and access tracks that are non-conforming or environmentally hazardous been upgraded or closed?						1	2	3
Quarries/Borrow Pits								
24. Have quarries and borrow pits been properly located, managed and rehabilitated?	7	4		11			1	1
Road Maintenance								
25. If the operation has been completed, is there evidence of ongoing maintenance of the road system?			1	1			9	9
Grand Total	**7**	**7**	**20**	**34**	**3**	**7**	**63**	**73**

Results of the 2019–20 assessment of FPPs (continued)

Harvesting	Quarrying Scores				NIPF Scores			
	Unacceptable	Below Sound	Sound	Grand Total	Unacceptable	Below Sound	Sound	Grand Total
Extraction design and equipment								
26. Is the extraction design and harvesting equipment consistent with the Code?						3	12	15
Harvesting dispersal and design								
27. Is coupe dispersal consistent with the Code?							14	14
Felling								
28. Has the harvesting boundary been clearly marked or defined?					2	2	13	17
29. Has harvesting been confined within the harvest boundary?					2	1	14	17
Wet weather limitations								
30. Has harvesting complied with wet weather							6	6
31. Has cartage complied with wet weather limitations?								
Snig/Forwarder Tracks								
32. Have snig tracks been located and constructed to minimise environmental harm and enable effective drainage?							9	9
33. Have snig track location and management effectively minimised damage to retained trees and protected soil and water values?						1	8	9
34. Have snig tracks been restored, including the removal of temporary crossings?							8	8
Landings								
35. Are landings (and continuous roadside landings) appropriately located, sized, and constructed?					4	1	6	11
36. Have landings been properly managed and stabilised?						1	10	11
Native Forest Streamside Reserves								
37. Is the width of the SSRs and MEZs correct, and is marking correct?							12	12
38. Have class 4 streams been upgraded according to Class 4 Guidelines, where necessary?							5	5
39. Has felling and machinery avoided unreasonable damage to SSRs and MEZs?					1		12	13
40. Has approved felling in SSRs and MEZs complied with the Code?							2	2
Plantation Streamside Reserves								
41. Has harvesting of trees in plantation SSRs complied with Code requirements?							1	1
Steep Country Harvesting								
42. Have cables been pulled through Class 1, 2, 3 SSR without causing unacceptable damage?								
43. Have potential erosion chanels on cabled areas been stabilised?								
Grand Total					**9**	**9**	**132**	**150**

Results of the 2019–20 assessment of FPPs (continued)

Reforestation	Quarrying Scores				NIPF Scores			
	Unacceptable	Below Sound	Sound	Grand Total	Unacceptable	Below Sound	Sound	Grand Total
Native Forest Regeneration								
44. Has an appropriate reforestation technique and stocking standard been prescribed?					2	2	2	6
45. Have fuel reduction, low or high intensity burns, been effectively carried out?							2	2
46. Have streamside reserves and MEZs been protected from fire?							4	4
47. Has appropriate seed been selected for native forest regeneration?							3	3
48. Has stocking standard as prescribed in the plan been achieved, or is it likely to be achieved?							5	5
49. Have trees been effectively protected from grazing and browsing damage?							3	3
Plantation Development								
50. Has burning been effectively carried out and streamside reserves protected?							2	2
51. Was soil cultivation carried out in a manner that minimises the risk of uncacceptable soil erosion?							1	1
52. Has cultivation been excluded from within 2m of the edge of drainage depressions?							1	1
53. Have class 1,2,3, and 4 streams and their stream side reserves and/or MEZs been protected?							1	1
54. Has the specified stocking standard been achieved?							1	1
55. Have trees been effectively protected from grazing and browzing damage?							1	1
Fire Breaks in Native Forest and Plantations								
56. Have firebreaks been located and managed to protect soil, water, and visual values?							6	6
Grand Total					**2**	**2**	**32**	**36**

Soils	Quarrying Scores				NIPF Scores			
	Unacceptable	Below Sound	Sound	Grand Total	Unacceptable	Below Sound	Sound	Grand Total
Soils								
58. Had the soil erodibility rating been correctly determined?			11	11			18	18
59. Has land slip potential been correctly determined?							12	12
60. Has burning intensity been appropriate for soil erodibility and nutrient status of the soils?							7	7
61. Have coupes with high and very high erodibility soils or with land exceeding the landslide threshold been referred to the FPA for comment?						1	1	2
62. Is there evidence of post-operation accelerated erosion?	2	1	7	10			15	15
Grand Total	**2**	**1**	**18**	**21**		**1**	**53**	**54**

Water quality and flows	Quarrying Scores				NIPF Scores			
	Unacceptable	Below Sound	Sound	Grand Total	Unacceptable	Below Sound	Sound	Grand Total
Water quality and flows								
63. Have all watercourses been identified and correctly classified?		1	10	11		1	16	17
64. Is there evidence of significant post-operation stream erosion?			9	9			14	14
Grand Total		**1**	**19**	**20**		**1**	**30**	**31**

Results of the 2019–20 assessment of FPPs (continued)

Biodiversity	Quarrying Scores				NIPF Scores			
	Unacceptable	Below Sound	Sound	Grand Total	Unacceptable	Below Sound	Sound	Grand Total
Flora								
65. Has the flora section of the biodiversity evaluation been completed correctly, including a map detailing the results of the field assessment?		3	8	11		3	15	18
66. Have flora values been referred to FPA Biodiversity section as required?			2	2	1		16	17
67. Have important flora values and advice been taken into account in the FPP?		2	7	9	2	2	13	17
68. Have the flora prescriptions of the FPP and variations been implemented?		3	4	7	1	2	13	16
Fauna								
69. Has the fauna section of the biodiversity evaluation been completed correctly, including a map detailing the results of the field assessment?			9	9	1	3	14	18
70. Have fauna values been referred to the FPA Biodiversity section as required?			2	2		2	14	16
71. Were prescriptions for threatened species incorporated clearly in FPP text and map?	1	3	7	11	1	3	14	18
72. Have threatened fauna prescriptions, and other fauna provisions (WHS/WHC) in the FPP been implemented?			7	7		1	17	18
Grand Total	**1**	**11**	**46**	**58**	**6**	**16**	**116**	**138**

Landscape	Quarrying Scores				NIPF Scores			
	Unacceptable	Below Sound	Sound	Grand Total	Unacceptable	Below Sound	Sound	Grand Total
Landscape								
73. Was the Landscape Management Objective (LMO) assessed correctly?			10	10		1	17	18
74. Were the Code provisions included in the FPP?		1	7	8		1	13	14
75. Have landscape prescriptions been implemented?	1		2	3	1		11	12
76. Was the recommended LMO in the Evaluation Sheet achieved?			9	9	1		16	17
Grand Total	**1**	**1**	**28**	**30**	**2**	**2**	**57**	**61**

Cultural Heritage	Quarrying Scores				NIPF Scores			
	Unacceptable	Below Sound	Sound	Grand Total	Unacceptable	Below Sound	Sound	Grand Total
Cultural Heritage								
77. Has MDC zoning been complied with on PTPZL land?								
78. Has the Aboriginal Known Sites Report and Conserve been consulted?	3	3	5	11		4	14	18
79. Have areas of sensitivity for Aboriginal cultural heritage been			8	8		1	17	18
80. Was specialist advice sought where necessary?							12	12
81. Has specialist advice and cultural heritage prescriptions been incorporated into the FPP?		2	7	9	2	10	6	18
82. Were the FPP prescriptions implemented?			6	6	3	1	6	10
83. Have site recording and management been in accordance with the Aboriginal Relics Act 1975?							2	2
Grand Total	**3**	**5**	**26**	**34**	**5**	**16**	**57**	**78**

Geoscience	Quarrying Scores				NIPF Scores			
	Unacceptable	Below Sound	Sound	Grand Total	Unacceptable	Below Sound	Sound	Grand Total
Geoscience								
84. Has the Geoscience evaluation been correctly completed?			11	11		2	16	18
85. Has the FPA Geoscientist been consulted, or a consultant engaged as required?						1	11	12
86. Have appropriate prescriptions been included in the FPP?			5	5		1	14	15
87. Have geoscience prescriptions been implemented satisfactorily?			1	1			13	13
Grand Total			**17**	**17**		**4**	**54**	**58**

Fuels, rubbish and emissions	Quarrying Scores				NIPF Scores			
	Unacceptable	Below Sound	Sound	Grand Total	Unacceptable	Below Sound	Sound	Grand Total
5. Fuels, Rubbish and Emissions		7	4	11	1	1	15	17
Grand Total		**7**	**4**	**11**	**1**	**1**	**15**	**17**

Appendix 4 Monitoring of the maintenance of the permanent native forest estate

A4.1 Background

Section 4C(fa) of the Act requires the FPA to monitor and report on the clearing of trees, harvesting and reforestation activity in relation to the maintenance of a permanent native forest estate.

The PNFE Policy was established through the Tasmanian Regional Forest Agreement (RFA) and was most recently revised in July 2017. The policy is available on the DSG's website.

The policy aims to maintain a permanent native forest estate by placing limits on conversion of native forest communities to other land uses. The policy does not restrict management activities such as timber harvesting and grazing. Harvesting is permitted in all forest types where the silvicultural system ensures successful regeneration and long-term maintenance of that forest community.

In the 2019–20 financial year the version of the PNFE Policy in place was dated 30 June 2017. This policy requires:

- **State-wide ban on broad scale clearance and conversion** of native forest on public or private land, except for a number of defined activities including (but not limited to): agricultural clearing (where it amounts to less than 40 ha on a property in a twelve month period), construction of new significant infrastructure, and to facilitate development demonstrating a substantial public benefit.
- **Threatened (rare, vulnerable and endangered) forest communities** (as listed in the Tasmanian *Nature Conservation Act 2002*) are to be regulated in accordance with the Act.

The PNFE Policy is given effect through the FPA's consideration of applications for FPPs under the Act. Planning tools and instructions current in the 2019–20 financial year ensured that any planned forest practices affecting communities with a priority for conservation were referred by FPOs to the Chief Forest Practices Officer. The FPA maintains a database which contains details of all certified FPPs, including (for each FPP) the forest communities in the FPP area and the type of operation affecting each community; this database forms the basis for the FPA's monitoring and reporting on Tasmania's permanent native forest estate.

The extent of forest communities as mapped in 1996 is the benchmark for reporting on the permanent native forest estate. Until 2007, FPA annual reports used the 1996 figures as identified in the Tasmanian RFA (1997) and associated documents. The 1996 mapping was reassessed during preparation of the *State of the forests Tasmania 2002* report. For most communities, differences between the 1997 and 2002 figures are minor, with the most substantial differences being an increase in the mapped extent of some rainforest communities in the 2002 assessment. The revised (2002) figures are used in this annual report.

From 1997 to 2006, suitable areas of private land that contain forest communities with a priority for conservation, or other values specified in the RFA, were referred to the Private Forest Reserves Program, DPIPWE, so that this program could assess and, if appropriate, negotiate conservation options with the landowner. The Private Forest Reserves Program was replaced by the Australian

Government's Forest Conservation Fund from 2006 to 2009. No dedicated forest reserve programs currently exist. However, persons who have an application for an FPP refused or amended because of threatened native vegetation may apply for compensation under the *Nature Conservation Act 2002*.

A4.2 The extent of the permanent native forest estate

The tables below provide the bioregional extent and conversion of forest communities to 30 June 2020. Figures given for the 1996 RFA forest community extent (in ha) are based on the *State of the forests Tasmania 2002* report revision of the 1996 RFA mapping data. Care is needed in interpreting the data, for the following reasons:

- The figures relate to planned 'forest practices' operations, not all of which will have been completed in the reporting period.
- Areas of forest communities given in FPPs are generally gross areas that may not exclude informal reserves such as streamside reserves or additional areas excluded for the protection of other natural and cultural values or due to operational constraints. The figures relating to the conversion of native forest are therefore likely to be overestimates for some communities.
- Conversion of threatened forest communities was permitted under the 1997 PNFE Policy. The FPA imposed a moratorium on further conversion of threatened communities in 2002, pending a review by the government of its PNFE Policy. The moratoriums were supported by bilateral agreements (signed in May 2003 and May 2005) between the Australian and Tasmanian governments. Under the revised PNFE Policy (2007), the FPA was given discretionary power to allow conversion of threatened communities in exceptional circumstances, where the conversion will not substantially detract from the conservation of that forest community or conservation values within the immediate area. Such clearance, in some cases, has been accompanied by reservation (offsets) of other areas of equal or greater conservation value. The FPA revised its offset policy in 2016–17 to allow more flexibility in offsetting options.
- The proportions of forest communities converted are based on the area of each community as mapped in 1996 (from RFA mapping and revised *State of the forests Tasmania 2002* report mapping, as discussed above). The mapping of forest communities is also subject to other reviews (e.g. through mapping undertaken by DPIPWE and the *Sustainability indicators report 2007*). Such revisions have provided more accurate information on the extent and distribution of forest communities, and have assisted the FPA to supply advice for operations affecting threatened forest communities or other communities approaching regional thresholds. Some figures given in previous annual reports have been revised in the light of more accurate information.
- In the 2005–06 reporting period, the Tasmanian and Australian governments approved the reclassification of the RFA community 'Inland *E. amygdalina* forest', following a review of this community by the Scientific Advisory Committee to the Private Forest Reserves Program (CARSAG). This community has been replaced by:
    - Inland *E. amygdalina – E. viminalis – E. pauciflora* forests and woodlands on Cainozoic deposits
    - *E. amygdalina* forest on mudstone.

Conversion figures for these communities are given separately in the tables below for this reporting period (2019–20) and the total conversion since the reclassification (i.e. 1996–19) is also given. Historic figures are provided for 'Inland *E. amygdalina* forest', but no further changes will be recorded against this community.

- The analyses do not include figures for clearing not associated with harvesting that was conducted before such clearing became subject to regulation in 2002, under the Act. A negligible amount of such clearing would have occurred in more commercial forest types, but may have been significant in some drier forests and woodlands with low timber quality. The analyses also do not include figures for clearing for other land use activities not regulated under the Tasmanian forest practices system (e.g. subdivisions etc.). However, the bioregional and state data does include the area cleared as a result of dam works permits issued under the *Water Management Act 1999.*

Monitoring of the maintenance of the permanent native forest estate

Woolnorth bioregion as at 01/07/2020

No.	RFA Forest Community	1996 RFA area (ha) (2002 dataset)	2019–20 decrease^ (ha)	Total decrease 1996–2020^ (ha)	% total decrease from 1996 RFA Area (2002 dataset)
1	Coastal *E. amygdalina* forest	24,646.0	3.9	993.94	4.0%
2	*E. amygdalina* forest on dolerite	18,134.0	11.4	2,376.7	13.0%
3✂	Inland *E. amygdalina* forest	902.0		121.6	13.5%
4*	*E. amygdalina* forest on sandstone	330.0	1.9	18.4	5.0%
5	*Allocasuarina verticillata* forest	177.0		9.9	5.6%
6*	*E. brookeriana* wet forest	4,439.0		273.8	6.2%
7	*Acacia melanoxylon* forest on flats	7,987.0	1.5	840.5	10.5%
8	*Acacia melanoxylon* forest on rises	7,852.0	0.3	278.3	3.5%
9*	*Banksia serrata* woodland	156.0		0.0	0.0%
10	*E. coccifera* dry forest	41.0		1.0	2.4%
12	Dry *E. delegatensis* forest	3,892.0		52.0	1.3%
13	*E. viminalis / E. ovata / E. amygdalina / E. obliqua* damp sclerophyll forest	29,915.0	1.3	1,928.7	6.4%
14	Tall *E. delegatensis* forest	14,552.0	6.0	2,333.9	16.0%
16*	*E. viminalis* and/or *E. globulus* coastal forest	10.0		1.4	14.0%
19*	King Island *E. globulus / E. brookeriana / E. viminalis* forest	2,411.0		9.0	0.4%
20	*Leptospermum sp. / Melaleuca squarrosa* swamp forest	7,304.0	9.4	1,819.4	24.9%
21	Callidendrous and thamnic rainforest on fertile sites	28,659.0	2.5	4,568.4	15.9%
22	Thamnic rainforest on less fertile sites	25,623.0		262.5	1.0%
23*	*Melaleuca ericifolia* coastal swamp forest	198.0		114.9	58.0%
25	Dry *E. nitida* forest	14,012.0	70.0	1947.9	13.9%
27*	*Notelaea ligustrina* and/or *Pomaderris apetala* closed forest	42.0		3.0	7.1%
28	Tall *E. nitida* forest	2,932.0	41.2	707.2	24.1%
29	Dry *E. obliqua* forest	29,106.0	14.2	4,594.3	15.8%
30	Tall *E. obliqua* forest	124,714.0	27.8	19,809.4	15.9%
31*	Shrubby *E. ovata – E. viminalis* forest	2,979.0	4.7	886.7	2.8%
34	*E. pauciflora* forest on Jurassic dolerite	-		0.5	&
36	*E. pauciflora* forest on sediments	-		3.4	&
37	*E. regnans* forest	2,632.0	0.3	926.6	35.2%
39	*E. rodwayi* forest	104.0		3.0	2.9%
41	*Acacia dealbata* forest	16,450.0	1.7	739.5	4.5%
43	*E. subcrenulata* forest	125.0		0.0	0.0%
47	*E. viminalis* grassy forest/woodland	2,905.0		70.4	2.4%
49*	*E. viminalis* wet forest	2,610.0		294.6	11.3%
50*	King Billy Pine Forest	0.0		0.0	0.0%
64*✂	Inland *E.amygdalina – E. viminalis – E. pauciflora* on Cainozoic deposits	-		0.0	&
65✂	*E. amygdalina* forest on mudstone	-		68.0	&
	TOTAL	**375,839.0**	**198.1**	**45,258.9**	**12.0%**

1. Only forest communities that occur within each IBRA region are shown.
2. Results are estimates, based on RFA mapping and area data provided in forest practices plans. The area shown as a decrease is likely to be an over-estimate as it is generally based on gross area, which excludes informal reserves such as streamside reserves. Note that these figures only take into account areas that have been cleared and converted as a result of activities covered by the *Forest Practices Act 1985* and areas approved for conversion by a Dam Works Permit issued under the *Water Management Act 1999.*
3. * Indicates a threatened native vegetation community (rare, vulnerable or endangered).
4. ✂ During 2005–06, Inland *E. amygdalina* was separated into 'Inland *E. amygdalina – E. viminalis – E. pauciflora* on Cainozoic deposits' and '*E. amygdalina* forest on mudstone', with only the former being considered a threatened forest community.
5. Anomalies in mapping (shown with an ampersand [&])) are subject to further field verification. Area data may be modified as mapping is refined.
6. Indicates communities with <2,000 ha remaining, or the community is threatened, or it has reached below 75% of the 1996 CRA native forest area of that community in an IBRA bioregional threshold for area converted

^To date as at 01/07/2020

Figures take into account areas that have been cleared and converted as a result of activities covered by Act and areas approved for conversion by a Dam Works Permit issued under the *Water Management Act 1999.*

Ben Lomond bioregion as at 01/07/2020

No.	RFA Forest Community	1996 RFA area (ha) (2002 dataset)	2019–20 decrease^ (ha)	Total decrease 1996–2020^ (ha)	% total decrease from 1996 RFA Area (2002 dataset)
1	Coastal *E. amygdalina* forest	133,418.0	26.9	8,731.4	6.5%
2	*E. amygdalina* forest on dolerite	42,456.0		1863.3	4.4%
3✂	Inland *E. amygdalina* forest	4,567.0		1187.0	26.0%
4*	*E. amygdalina* forest on sandstone	1,024.0		207.8	20.3%
5	*Allocasuarina verticillata* forest	303.0		1.4	0.5%
6*	*E. brookeriana* wet forest	0.0		2.3	&
7	*Acacia melanoxylon* forest on flats	259.0		20.2	7.8%
8	*Acacia melanoxylon* forest on rises	75.0		38.2	50.9%
10	*E. coccifera* dry forest	28.0		0.0	0.0%
12	Dry *E. delegatensis* forest	29,876.0	35.0	1,817.1	6.1%
13	*E. viminalis / E. ovata / E. amygdalina / E. obliqua* damp sclerophyll forest	2,091.0		925.0	44.2%
14	Tall *E. delegatensis* forest	47,552.0	2.3	3,108.4	6.5%
20	*Leptospermum* sp. / *Melaleuca squarrosa* swamp forest	41.0		39.6	96.5%
21	Callidendrous and thamnic rainforest on fertile sites	25,085.0		392.0	1.6%
23*	*Melaleuca ericifolia* coastal swamp forest	400.0		11.4	2.9%
27*	*Notelaea ligustrina* and/or *Pomaderris apetala* closed forest	20.0		0.0	0.0%
29	Dry *E. obliqua* forest	29,573.0	3.2	10,126.2	34.2%
30	Tall *E. obliqua* forest	53,509.0	0.6	7,049.5	13.2%
31*	Shrubby *E.ovata / E. viminalis* forest	428.0		581.4	135.8%
36	*E. pauciflora* forest on sediments	1,851.0		0.0	0.0%
37	*E. regnans* forest	27,517.0	6.2	9,179.0	33.3%
39	*E. rodwayi* forest	39.0		79.2	203.1%
40	*E. sieberi* forest on granite	16,866.0		227.9	1.4%
41	*Acacia dealbata* forest	21,434.0	0.9	1529.9	7.1%
42	*E. sieberi* forest on other substrates	43,278.0		267.1	0.6%
47	*E. viminalis* grassy forest/woodland	18,872.0		164.2	0.9%
49*	*E. viminalis* wet forest	92.0		52.1	56.7%
64* ✂	Inland *E.amygdalina / E.viminalis / E.pauciflora* on Cainozoic deposits	-		10.4	&
65✂	*E. amygdalina* forest on mudstone	-	0.8	213.2	&
	TOTAL	**500,654.0**	**75.9**	**47,825.1**	**9.6%**

1. Only forest communities that occur within each IBRA region are shown.
2. Results are estimates, based on RFA mapping and area data provided in forest practices plans. The area shown as a decrease is likely to be an over-estimate as it is generally based on gross area, which excludes informal reserves such as streamside reserves. Note that these figures only take into account areas that have been cleared and converted as a result of activities covered by the *Forest Practices Act 1985* and areas approved for conversion by a Dam Works Permit issued under the *Water Management Act 1999.*
3. * Indicates a threatened native vegetation community (rare, vulnerable or endangered).
4. ✂ During 2005–06, Inland *E. amygdalina* was separated into 'Inland *E. amygdalina – E. viminalis – E. pauciflora* on Cainozoic deposits' and '*E. amygdalina* forest on mudstone', with only the former being considered a threatened forest community
5. Anomalies in mapping (shown with an ampersand [&])) are subject to further field verification. Area data may be modified as mapping is refined.
6. Indicates communities with <2,000 ha remaining, or the community is threatened, or it has reached below 75% of the 1996 CRA native forest area of that community in an IBRA bioregional threshold for area converted

^To date as at 01/07/2020

Figures take into account areas that have been cleared and converted as a result of activities covered by Act and areas approved for conversion by a Dam Works Permit issued under the *Water Management Act 1999.*

Midlands bioregion as at 01/07/2020

No.	RFA Forest Community	1996 RFA area (ha) (2002 dataset)	2019–20 decrease^ (ha)	Total decrease 1996–2020^ (ha)	% total decrease from 1996 RFA Area (2002 dataset)
1	Coastal *E. amygdalina* dry sclerophyll forest	3,250.0		5.0	0.2%
2	*E. amygdalina* forest on dolerite	41,279.0	2.8	1,203.0	2.9%
3✂	Inland *E. amygdalina* forest	19,734.0		664.0	3.4%
4*	*E. amygdalina* forest on sandstone	3,935.0		74.6	1.9%
5	*Allocasuarina verticillata* forest	269.0		7.5	2.8%
12	Dry *E. delegatensis* forest	9,642.0	4.1	1,588.3	16.5%
13	*E. viminalis / E. ovata / E. amygdalina / E. obliqua* damp sclerophyll forest	7,608.0	0.8	737.3	9.7%
14	Tall *E. delegatensis* forest	3,812.0		297.5	7.8%
16*	*E. viminalis* and/or *E. globulus* coastal shrubby forest	70.0		2.0	2.9%
17*	Grassy *E. globulus* forest	2,805.0		172.5	6.1%
21	Callidendrous and thamnic rainforest on fertile soils	108.0		0.0	0.0%
22	Thamnic rainforest on less fertile soils	113.0		0.0	0.0%
24*	*E. morrisbyi* forest	22.0		0.0	0.0%
25	Dry *E. nitida* forest	7.0		0.0	0.0%
27*	*Notelaea ligustrina* and/or *Pomaderris apetala* closed forest	28.0		8.0	28.6%
29	Dry *E. obliqua* forest	13,599.0	1.3	1,700.9	12.5%
30	Tall *E. obliqua* forest	8,315.0	2	496.5	6.0%
31*	Shrubby *E. ovata/E. viminalis* forest	2656.0	0.4	40.7	1.5%
32	*E. pulchella / E. globulus / E. viminalis* grassy shrubby forest	28,223.0	0.1	595.6	2.1%
34	*E. pauciflora* forest on Jurassic dolerite	450.0		70.6	15.7%
36	*E. pauciflora* forest on sediments	1,290.0		0.0	0.0%
37	*E. regnans* forest	996.0		84.2	8.5%
38*	*E. risdonii* forest	375.0		2.0	0.5%
39	*E. rodwayi* forest	113.0		22.0	19.5%
41	*Acacia dealbata* forest	1,911.0		162.7	8.5%
42	*E. sieberi* forest on other substrates	0.0		2.2	&
43	*E. subcrenulata* forest	10.0		0.0	0.0%
46*	Inland *E. tenuiramis* forest	33,913.0	0.1	6.7	0.0%
47	*E. viminalis* grassy forest/woodland	60,259.0	6.6	476.9	0.8%
49*	*E. viminalis* wet forest	61.0		9.5	15.6%
64* ✂	Inland E.amygdalina – E. viminalis – E. pauciflora on Cainozoic deposits	-		7.3	&
65 ✂	*E. amygdalina* forest on mudstone	-		309.5	&
	TOTAL	**244,853.0**	**18.2**	**8,747.0**	**3.6%**

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2. Results are estimates, based on RFA mapping and area data provided in forest practices plans. The area shown as a decrease is likely to be an over-estimate as it is generally based on gross area, which excludes informal reserves such as streamside reserves. Note that these figures only take into account areas that have been cleared and converted as a result of activities covered by the *Forest Practices Act 1985* and areas approved for conversion by a Dam Works Permit issued under the *Water Management Act 1999.*
3. * Indicates a threatened native vegetation community (rare, vulnerable or endangered).
4. ✂ During 2005–06, Inland *E. amygdalina* was separated into 'Inland *E. amygdalina – E. viminalis – E. pauciflora* on Cainozoic deposits' and '*E. amygdalina* forest on mudstone', with only the former being considered a threatened forest community.
5. Anomalies in mapping (shown with an ampersand [&]) are subject to further field verification. Area data may be modified as mapping is refined.
6. Indicates communities with <2,000 ha remaining, or the community is threatened, or it has reached below 75% of the 1996 CRA native forest area of that community in an IBRA bioregional threshold for area converted

^To date as at 01/07/2020

Figures take into account areas that have been cleared and converted as a result of activities covered by Act and areas approved for conversion by a Dam Works Permit issued under the Water Management Act 1999.

Freycinet bioregion as at 01/07/2020

No.	RFA Forest Community	1996 RFA area (ha) (2002 dataset)	2019–20 decrease^ (ha)	Total decrease 1996–2020^ (ha)	% total decrease from 1996 RFA Area (2002 dataset)
1	Coastal *E. amygdalina* forest	28,574.0	0.1	87.1	0.3%
2	*E. amygdalina* forest on dolerite	70,401.0		1,867.3	2.7%
3✂	Inland *E. amygdalina* forest	568.0		154.0	27.1%
4*	*E. amygdalina* forest on sandstone	24,012.0		314.9	1.3%
5	*Allocasuarina verticillata* forest	391.0		0.0	0.0%
6*	*E. brookeriana* wet forest	19.0		1.2	6.3%
10	*E. coccifera* dry forest	82.0		1.0	1.2%
11*	*Callitris rhomboidea* forest	606.0		0.0	0.0%
12	Dry *E. delegatensis* forest	66,809.0		2,005.6	3.0%
13	*E. viminalis / E. ovata / E. amygdalina / E. obliqua* damp sclerophyll forest	0.0		230.0	&
14	Tall *E. delegatensis* forest	21,263.0		262.1	1.2%
16*	*E. viminalis* and/or *E. globulus* coastal shrubby forest	977.0		0.0	0.0%
17*	Grassy *E. globulus* forest	10,842.0		352.8	3.3%
20	*Leptospermum* species / *Melaleuca squarrosa* swamp forest	81.0		7.0	8.6%
21	Callidendrous and thamnic rainforest on fertile sites	627.0		0.0	0.0%
27*	*Notelaea ligustrina* and/or *Pomaderris apetala* closed forest	21.0		0.0	0.0%
29	Dry *E. obliqua* forest	30,256.0	15.0	2,490.9	8.2%
30	Tall *E. obliqua* forest	30,511.0		1494	4.9%
31*	Shrubby *E. ovata* / *E. viminalis* forest	719.0		6.9	1.0%
32	*E. pulchella / E. globulus / E. viminalis* grassy shrubby forest	110,203.0	11.3	1,212.2	1.1%
34	*E. pauciflora* forest on Jurassic dolerite	1,274.0		3.5	0.3%
36	*E. pauciflora* forest on sediments	47.0		0.0	0.0%
37	*E. regnans* forest	3,280.0		804.6	24.5%
39	*E. rodwayi* forest	2,149.0		2.5	0.1%
40	*E. sieberi* forest on granite	829.0		0.0	0.0%
41	*Acacia dealbata* forest	2,079.0	0.8	171.9	8.3%
42	*E. sieberi* forest on other substrates	2,986.0		0.0	0.0%
44	*E. tenuiramis* forest on granite	2,983.0		4.3	0.1%
45	*E. tenuiramis* forest on dolerite	7,514.0		45.3	0.6%
46*	Inland *E. tenuiramis* forest	2,301.0		4.9	0.2%
47	*E. viminalis* grassy forest/woodland	20,908.0		264.24	1.3%
49*	*E. viminalis* wet forest	815.0		0.0	0.0%
64* ✂	Inland *E.amygdalina – E. viminalis – E. pauciflora* on Cainozoic deposits	-	10.0	10.0	&
65 ✂	*E.amygdalina* forest on mudstone	-		21.1	&
	TOTAL	**444,127.0**	**37.2**	**11,819.4**	**2.7%**

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2. Results are estimates, based on RFA mapping and area data provided in forest practices plans. The area shown as a decrease is likely to be an over-estimate as it is generally based on gross area, which excludes informal reserves such as streamside reserves. Note that these figures only take into account areas that have been cleared and converted as a result of activities covered by the *Forest Practices Act 1985* and areas approved for conversion by a Dam Works Permit issued under the *Water Management Act 1999.*
3. * Indicates a threatened native vegetation community (rare, vulnerable or endangered).
4. ✂ During 2005–06, Inland *E. amygdalina* was separated into 'Inland *E. amygdalina – E. viminalis – E. pauciflora* on Cainozoic deposits' and '*E. amygdalina* forest on mudstone', with only the former being considered a threatened forest community.
5. Anomalies in mapping (shown with an ampersand [&]) are subject to further field verification. Area data may be modified as mapping is refined.
6. Indicates communities with <2,000 ha remaining, or the community is threatened, or it has reached below 75% of the 1996 CRA native forest area of that community in an IBRA bioregional threshold for area converted

^To date as at 01/07/2020

Figures take into account areas that have been cleared and converted as a result of activities covered by Act and areas approved for conversion by a Dam Works Permit issued under the Water Management Act 1999.

Central Highlands bioregion as at 01/07/2020

No.	RFA Forest Community	1996 RFA area (ha) (2002 dataset)	2019–20 decrease^ (ha)	Total decrease 1996–2020^ (ha)	% total decrease from 1996 RFA Area (2002 dataset)
1	Coastal *E. amygdalina* dry sclerophyll forest	276.0		0.0	0.0%
2	*E. amygdalina* forest on dolerite	5,986.0		1,494.1	25.0%
4*	*E. amygdalina* forest on sandstone	49.0		15.0	30.6%
6*	*E. brookeriana* wet forest	6.0		0.0	0.0%
8	*Acacia melanoxylon* forest on rises	151.0		18.7	12.4%
10	*E. coccifera* dry forest	49,927.0		23.5	0.0%
12	Dry *E. delegatensis* forest	165,758.0	15.1	9,354.3	5.6%
13	*E. viminalis / E. ovata / E. amygdalina / E. obliqua* damp sclerophyll forest	1,093.0		108.4	9.9%
14	Tall *E. delegatensis* forest	152,381.0	5.9	6,697.6	4.4%
15*	King Billy pine – deciduous beech forest	176.0		0.0	0.0%
20	*Leptospermum* sp. / *Melaleuca squarrosa* swamp forest	388.0		1.0	0.3%
21	Callidendrous and thamnic rainforest on fertile sites	24,755.0	0.5	2,207.9	8.9%
22	Thamnic rainforest on less fertile sites	53,914.0	0.05	137.35	0.3%
25	Dry *E. nitida* forest	5,501.0		4.0	0.1%
28	Tall *E. nitida* forest	1,815.0		0.0	0.0%
29	Dry *E. obliqua* forest	6,626.0		1,875.9	28.3%
30	Tall E. obliqua forest	14,125.0		1,168.8	8.3%
31*	Shrubby *E. ovata / E. viminalis* forest	104.0		3.0	2.9%
32	*E. pulchella / E. globulus / E. viminalis* grassy shrubby forest	1,750.0		51.0	2.9%
33*	Pencil pine – deciduous beech forest	176.0		0.0	0.0%
34	*E. pauciflora* forest on Jurassic dolerite	17,079.0		435.8	2.6%
35*	Pencil pine forest	314.0		0.0	0.0%
36	*E. pauciflora* forest on sediments	13,026.0		84.7	0.7%
37	*E. regnans* forest	7,843.0	5.3	741.8	9.5%
39	*E. rodwayi* forest	6,272.0	0.3	966.1	15.4%
41	*Acacia dealbata* forest	7,275.0		326.7	4.5%
43	*E. subcrenulata* forest	3,610.0		3.9	0.1%
45	*E. tenuiramis* forest on dolerite	8.0		24.7	308.8%
46*	Inland *E. tenuiramis* forest	17,489.0		27.9	0.2%
47	*E. viminalis* grassy forest / woodland	10,141.0	0.05	260.35	2.6%
49*	*E. viminalis* wet forest	593.0		0.0	0.0%
50*	King Billy pine forest	3,568.0		0.0	0.0%
64*✂	Inland *E.amygdalina – E. viminalis – E. pauciflora* on Cainozoic deposits	-		0.0	&
65✂	*E.amygdalina* forest on mudstone	-		25.0	&
	TOTAL	**572,175.0**	**27.1**	**26,057.5**	**4.6%**

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3. * Indicates a threatened native vegetation community (rare, vulnerable or endangered).
4. ✂ During 2005–06, Inland *E. amygdalina* was separated into 'Inland *E. amygdalina – E. viminalis – E. pauciflora* on Cainozoic deposits' and '*E. amygdalina* forest on mudstone', with only the former being considered a threatened forest community.
5. Anomalies in mapping (shown with an ampersand [&]) are subject to further field verification. Area data may be modified as mapping is refined.
6. Indicates communities with <2,000 ha remaining, or the community is threatened, or it has reached below 75% of the 1996 CRA native forest area of that community in an IBRA bioregional threshold for area converted

^To date as at 01/07/2020

West and Southwest bioregion as at 01/07/2020

No.	RFA Forest Community	1996 RFA area (ha) (2002 dataset)	2019–20 decrease^ (ha)	Total decrease 1996–2020^ (ha)	% total decrease from 1996 RFA Area (2002 dataset)
2	*E. amygdalina* forest on dolerite	0.0		2.0	&
6*	*E. brookeriana* wet forest	75.0		0.0	0.0%
7	*Acacia melanoxylon* forest on flats	744.0		0.0	0.0%
8	*Acacia melanoxylon* forest on rises	5,074.0		290.0	5.7%
10	*E. coccifera* dry forest	600.0		0.0	0.0%
12	Dry *E. delegatensis* forest	6,148.0		28.0	0.5%
13	*E. viminalis / E. ovata / E. amygdalina / E. obliqua* damp sclerophyll forest	0.0		3.0	&
14	Tall *E. delegatensis* forest	21,408.0		104.0	0.5%
15*	King Billy pine – deciduous beech forest	622.0		0.0	0.0%
16*	*E. viminalis* and/or *E. globulus* coastal shrubby forest	99.0		0.0	0.0%
18	Huon pine forest	8,503.0		0.0	0.0%
20	*Leptospermum* sp. / *Melaleuca squarrosa* swamp forest	9,309.0		431.5	4.6%
21	Callidendrous and thamnic rainforest on fertile sites	106,311.0		321.6	0.3%
22	Thamnic rainforest on less fertile sites	275,451.0		20.2	0.0%
25	Dry *E. nitida* forest	136,768.0		72.0	0.1%
27*	*Notelaea ligustrina* and/or *Pomaderris apetala* closed forest	95.0		0.0	0.0%
28	Tall *E. nitida* forest	67,174.0		326.5	0.5%
29	Dry *E. obliqua* forest	24,924.0		249.0	1.0%
30	Tall *E. obliqua* forest	83,500.0		2,431.9	2.9%
37	*E. regnans* forest	12,588.0	0.2	1,398.3	11.1%
41	*Acacia dealbata* forest	499.0		1.8	0.4%
43	*E. subcrenulata* forest	2,253.0		0.0	0.0%
50*	King Billy pine forest	13,907.0		0.0	0.0%
	TOTAL	**776,052.0**	**0.2**	**5,679.8**	**0.7%**

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2. Results are estimates, based on RFA mapping and area data provided in forest practices plans. The area shown as a decrease is likely to be an over-estimate as it is generally based on gross area, which excludes informal reserves such as streamside reserves. Note that these figures only take into account areas that have been cleared and converted as a result of activities covered by the *Forest Practices Act 1985* and areas approved for conversion by a Dam Works Permit issued under the *Water Management Act 1999.*
3. * Indicates a threatened native vegetation community (rare, vulnerable or endangered).
4. Indicates communities with <2,000 ha remaining, or the community is threatened, or it has reached below 75% of the 1996 CRA native forest area of that community in an IBRA bioregional threshold for area converted

^To date as at 01/07/2020

D'Entrecasteaux bioregion as at 01/07/2020

No.	RFA Forest Community	1996 RFA area (ha) (2002 dataset)	2019–20 decrease^ (ha)	Total decrease 1996–2020^ (ha)	% total decrease from 1996 RFA Area (2002 dataset)
1	Coastal *E. amygdalina* forest	61.0		1.1	1.8%
2	*E. amygdalina* forest on dolerite	219.0		4.3	2.0%
4*	*E. amygdalina* forest on sandstone	798.0		6.0	0.8%
10	*E. coccifera* dry forest	3,952.0		2.0	0.1%
12	Dry *E. delegatensis* forest	7,996.0		107.2	1.3%
14	Tall *E. delegatensis* forest	24,803.0	1.9	659.6	2.7%
15*	King Billy pine – deciduous beech forest	6.0		0.0	0.0%
17*	Grassy *E. globulus* forest	596.0		61.0	10.2%
18	Huon Pine forest	9.0		0.0	0.0%
20	*Leptospermum* sp. / *Melaleuca squarrosa* swamp forest	1,244.0		10.8	0.9%
21	Callidendrous and thamnic rainforest on fertile sites	6,889.0		14.7	0.2%
22	Thamnic rainforest on less fertile sites	22,944.0		3.4	0.0%
25	Dry *E. nitida* forest	3,031.0		28.1	0.9%
27*	*Notelaea ligustrina* and/or *Pomaderris apetala* closed forest	54.0		0.0	0.0%
28	Tall *E. nitida* forest	2,402.0		18.9	0.8%
29	Dry *E. obliqua* forest	29,486.0	0.2	1,055.5	3.6%
30	Tall *E. obliqua* forest	111,866.0	27.1	7,937.9	7.1%
31*	Shrubby *E. ovata* / *E. viminalis* forest	222.0		1.2	0.5%
32	*E. pulchella* / *E. globulus* / *E. viminalis* grassy shrubby forest	10,905.0		63.1	0.6%
35*	Pencil pine forest	11.0		0.0	0.0%
37	*E. regnans* forest	21,388.0	5.7	3,853.4	18.0%
41	*Acacia dealbata* forest	3,890.0		143.2	3.7%
43	*E. subcrenulata* forest	4,238.0		8.2	0.2%
45	*E. tenuiramis* forest on dolerite	766.0		0.0	0.0%
46*	Inland *E. tenuiramis* forest	1,042.0		7.2	0.7%
47	*E. viminalis* grassy forest/woodland	194.0		0.0	0.0%
50*	King Billy pine forest	2,581.0		0.0	0.0%
65✂	*E. amygdalina* forest on mudstone	-		5.0	&
	TOTAL	**261,593.0**	**34.9**	**13,990.7**	**5.3%**

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2. Results are estimates, based on RFA mapping and area data provided in forest practices plans. The area shown as a decrease is likely to be an over-estimate as it is generally based on gross area, which excludes informal reserves such as streamside reserves. Note that these figures only take into account areas that have been cleared and converted as a result of activities covered by the *Forest Practices Act 1985* and areas approved for conversion by a Dam Works Permit issued under the *Water Management Act 1999.*
3. * Indicates a threatened native vegetation community (rare, vulnerable or endangered).
4. ✂ During 2005–06, Inland *E. amygdalina* was separated into 'Inland *E. amygdalina* – *E. viminalis* – *E. pauciflora* on Cainozoic deposits' and '*E. amygdalina* forest on mudstone', with only the former being considered a threatened forest community.
5. Anomalies in mapping (shown with an ampersand [&]) are subject to further field verification. Area data may be modified as mapping is refined.
6. Indicates communities with <2,000 ha remaining, or the community is threatened, or it has reached below 75% of the 1996 CRA native forest area of that community in an IBRA bioregional threshold for area converted

^To date as at 01/07/2020

Figures take into account areas that have been cleared and converted as a result of activities covered by Act and areas approved for conversion by a Dam Works Permit issued under the Water Management Act 1999.

Furneaux bioregion as at 01/07/2020

No.	RFA Forest Community	1996 RFA area (ha) (2002 dataset)	2019–20 decrease^ (ha)	Total decrease 1996–2020^ (ha)	% total decrease from 1996 RFA Area (2002 dataset)
5	*Allocasuarina verticillata* forest	142		0.0	0.0%
11*	*Callitris rhomboidea* forest	120		0.0	0.0%
20	*Leptospermum* sp. / *Melaleuca squarrosa* swamp forest	285		0.0	0.0%
23*	*Melaleuca ericifolia* coastal swamp forest	11		1.7	15.5%
26	Furneaux *E. nitida* forest	29,712.0		63.0	0.2%
48*	Furneaux *E. viminalis* forest	135		0.0	0.0%
	TOTAL	**30,405.0**	**0.0**	**64.7**	**0.2%**

1. Only forest communities that occur within each IBRA region are shown.
2. Results are estimates, based on RFA mapping and area data provided in forest practices plans. The area shown as a decrease is likely to be an over-estimate as it is generally based on gross area, which excludes informal reserves such as streamside reserves. Note that these figures only take into account areas that have been cleared and converted as a result of activities covered by the *Forest Practices Act 1985* and areas approved for conversion by a Dam Works Permit issued under the *Water Management Act 1999.*
3. * Indicates a threatened native vegetation community (rare, vulnerable or endangered).
4. Indicates communities with <2,000 ha remaining, or the community is threatened, or it has reached below 75% of the 1996 CRA native forest area of that community in an IBRA bioregional threshold for area converted

^To date as at 01/07/2020

State totals[1] as at 01/07/2020

Bioregion	1996 RFA area (ha) (2002 dataset)	2019–20^ decrease (ha)	Total decrease 1996–2020^ (ha)	% total decrease from 1996 RFA Area (2002 dataset)
Woolnorth	375,839.0	198.07	45,258.9	12.0%
Ben Lomond	500,654.0	75.9	47,825.1	9.6%
D'Entrecasteaux	261,593.0	34.9	13,990.7	5.3%
Central Highlands	572,175.0	27.1	26,057.5	4.6%
Midlands	244,853.0	18.2	8,747.0	3.6%
Freycinet	444,127.0	37.2	11,819.4	2.7%
West and Southwest	776,052.0	0.2	5,679.8	0.7%
Furneaux	30,405.0		64.7	0.2%
State Total	**3,205,698.0**	**391.7**	**159,408.1**	**5.0%**

1 This table includes the areas cleared as a result of dam works permits issued under the *Water Management Act 1999*.