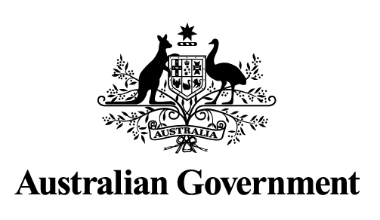
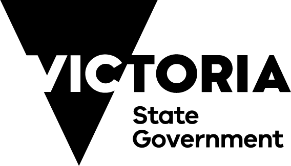
Victoria’s Regional Forest Agreements



Assessment of matters pertaining to the modernisation of Victoria’s Regional Forest Agreements

2019



**Context**

All data used in this document was collected prior to the 2019-20 bushfires in Victoria. Further assessments will be undertaken following the fires to understand the impacts and identify any remedial action required.

**Acknowledgement**

We acknowledge and respect Victorian Traditional Owners as the original custodians of Victoria's land and waters, their unique ability to care for Country and deep spiritual connection to it. We honour Elders past and present whose knowledge and wisdom has ensured the continuation of culture and traditional practices.

We are committed to genuinely partner, and meaningfully engage, with Victoria's Traditional Owners and Aboriginal communities to support the protection of Country, the maintenance of spiritual and cultural practices and their broader aspirations in the 21st century and beyond.

**Disclaimer**

This report has been jointly prepared by the State of Victoria and Commonwealth of Australia to inform the modernisation of Victoria’s Regional Forest Agreements (RFAs).

This publication may be of assistance to you but the State of Victoria and Commonwealth of Australia and their employees do not guarantee that the publication is without flaw of any kind or is wholly appropriate for your particular purposes and therefore disclaims all liability for any error, loss or other consequence which may arise from you relying on any information in this publication.

**ISBN 978-1-76105-032-9 (pdf/online/MS word)**

**Accessibility**

If you would like to receive this publication in an alternative format, please telephone the DELWP Customer Service Centre on 136 186, email customer.service@delwp.vic.gov.au, or via the National Relay Service on 133 677 www.relayservice.com.au.

**Photo credit: Front page – Salahuddin Ahmad.**

Contents

[Acronyms and abbreviations 7](#_Toc33002064)

[Introduction 11](#_Toc33002065)

[Background 13](#_Toc33002066)

[Victorian RFA regions 15](#_Toc33002067)

[Method 16](#_Toc33002068)

[Environmental values 23](#_Toc33002069)

[Old-growth values 24](#_Toc33002070)

[Indicator 1.1b: Area of forest type by growth stage 24](#_Toc33002071)

[Wilderness values 31](#_Toc33002072)

[National Parks Act 1975 31](#_Toc33002073)

[Wilderness extent and protection in Victorian RFA regions 31](#_Toc33002074)

[Endangered species values 38](#_Toc33002075)

[National legislation protecting Listed Species and Communities 39](#_Toc33002076)

[Victorian legislation protecting listed species and communities 40](#_Toc33002077)

[Indicator 1.2b: The status of forest-dwelling species at risk of not maintaining viable breeding populations, as determined by legislation or scientific assessment 44](#_Toc33002078)

[National estate values 55](#_Toc33002079)

[Changes to national legislation 55](#_Toc33002080)

[Victorian legislation to protect national estate values 56](#_Toc33002081)

[Indicator 6.4b: Registered places of non-Indigenous cultural value in forests that are formally managed to protect those values 58](#_Toc33002082)

[World Heritage values 68](#_Toc33002083)

[Legislative protection of World Heritage values 68](#_Toc33002084)

[World Heritage listing 69](#_Toc33002085)

[Biodiversity values 71](#_Toc33002086)

[Indicator 1.1a: Area of forest by forest type and tenure 72](#_Toc33002087)

[Indicator 1.1c: Area of forest in protected area categories 78](#_Toc33002088)

[Indicator 1.1d: Fragmentation of forest cover 92](#_Toc33002089)

[Indicator 1.2a Forest-dwelling species for which ecological information is available 95](#_Toc33002090)

[Indicator 1.2c: Representative species from a range of habitats monitored at scales relevant to regional forest management 101](#_Toc33002091)

[Indicator 1.3a: Forest associated species at risk from isolation and the loss of genetic variation, and conservation efforts for those species 106](#_Toc33002092)

[Indicator 1.3b: Native forest and plantations of indigenous timber species which have genetic resource conservation mechanisms in place 112](#_Toc33002093)

[Wetland values 115](#_Toc33002094)

[The Ramsar Convention 115](#_Toc33002095)

[Non-Ramsar wetland areas in RFA regions and the extent in terrestrial ecosystems and in the CAR reserve system 116](#_Toc33002096)

[Nationally important wetlands 122](#_Toc33002097)

[Victorian Waterway Management Strategy 127](#_Toc33002098)

[Waterway condition indices 127](#_Toc33002099)

[The *Environment Protection and Biodiversity Conservation Act 1999* 128](#_Toc33002100)

[Migratory shorebirds 129](#_Toc33002101)

[Indicator 4.1a: Area of forest land managed primarily for protective functions 131](#_Toc33002102)

[Indicator 4.1b: Management of the risk of soil erosion in forests 135](#_Toc33002103)

[Indicator 4.1c: Management of the risks to soil physical properties in forests 144](#_Toc33002104)

[Indicator 4.1d: Management of the risks to water quantity from forests 146](#_Toc33002105)

[Indicator 4.1e: Management of the risks to water quality in forests 153](#_Toc33002106)

[Summary and future management of environmental values 158](#_Toc33002107)

[Old-growth values 158](#_Toc33002108)

[Wilderness values 158](#_Toc33002109)

[Endangered species values 159](#_Toc33002110)

[National estate values 160](#_Toc33002111)

[World heritage values 160](#_Toc33002112)

[Biodiversity values 161](#_Toc33002113)

[Wetland values 161](#_Toc33002114)

[Indigenous heritage values 163](#_Toc33002115)

[Comprehensive Regional Assessment 163](#_Toc33002116)

[Indicator 6.4a: Area of forest to which Indigenous people have use and rights that protect their special values and are recognised through formal and informal management regimes 164](#_Toc33002117)

[Indicator 6.4c: The extent to which Indigenous values are protected, maintained and enhanced through Indigenous participation in forest management 171](#_Toc33002118)

[Indicator 6.5d: Resilience of forest-dependent Indigenous communities to changing social and economic conditions 173](#_Toc33002119)

[Summary and future management of Indigenous heritage values 175](#_Toc33002120)

[Economic values 176](#_Toc33002121)

[Overview of regulatory setting for sustainable forest management 176](#_Toc33002122)

[Commercial regulation and governance of timber harvesting 177](#_Toc33002123)

[Indicator 2.1a: Native forest available for wood production, area harvested, and growing stock of merchantable and non-merchantable tree species 178](#_Toc33002124)

[Indicator 2.1b: Age class and growing stock of plantations 188](#_Toc33002125)

[Indicator 2.1c: Annual removal of wood products compared to the volume determined to be sustainable for native forests and future yields for plantations 192](#_Toc33002126)

[Indicator 2.1d: Annual removal of non-wood forest products compared to the level determined to be sustainable 205](#_Toc33002127)

[Indicator 2.1e: The area of native forest harvested and the proportion of that effectively regenerated, and the area of plantation harvested and the proportion of that effectively re-established 210](#_Toc33002128)

[Indicator 6.1a: Value and volume of wood and wood products 212](#_Toc33002129)

[Indicator 6.1b: Values, quantities and use of non-wood forest products 221](#_Toc33002130)

[Indicator 6.1c: Value of forest-based services 229](#_Toc33002131)

[Indicator 6.1d: Production and consumption and import/export of wood, wood products and non-wood products 254](#_Toc33002132)

[Indicator 6.1e: Degree of recycling of forest products 256](#_Toc33002133)

[Indicator 6.2a: Investment and expenditure in forest management 258](#_Toc33002134)

[Indicator 6.2b: Investment in research, development, extension and use of new and improved technologies 260](#_Toc33002135)

[Summary and future management of economic values 262](#_Toc33002136)

[Social values 264](#_Toc33002137)

[Indicator 6.3a: Area of forest available for general recreation/tourism 264](#_Toc33002138)

[Indicator 6.3b: Range and use of recreation/tourism activities available 266](#_Toc33002139)

[Indicator 6.4d: The importance of forests to people 272](#_Toc33002140)

[Indicator 6.5a: Direct and indirect employment in the forest sector 276](#_Toc33002141)

[Indicator 6.5b: Wage rates and injury rates within the forest sector 280](#_Toc33002142)

[Indicator 6.5c: Resilience of forest-dependent communities to changing social and economic conditions 283](#_Toc33002143)

[Summary and future management of social values 296](#_Toc33002144)

[Indicator 7.1a: Extent to which the legal framework supports the conservation and sustainable management of forests 298](#_Toc33002145)

[Indicator 7.1b: Extent to which the institutional framework supports the conservation and sustainable management of forests 301](#_Toc33002146)

[Indicator 7.1c: Extent to which the economic framework supports the conservation and sustainable management of forests 306](#_Toc33002147)

[Indicator 7.1d: Capacity to measure and monitor changes in the conservation and sustainable management of forests 309](#_Toc33002148)

[Indicator 7.1e: Capacity to conduct and apply research and development aimed at improving forest management and delivery of forest goods and services 310](#_Toc33002149)

[Indicator 3.1a: Scale and impact of agents and processes affecting forest health and vitality 313](#_Toc33002150)

[Indicator 5.1a: Contribution of forest ecosystems and forest industries to the global greenhouse gas balance 318](#_Toc33002151)

[Summary of future management of the principles of ecologically sustainable forest management 323](#_Toc33002152)

[References 325](#_Toc33002153)

[Appendices 336](#_Toc33002154)

[1. Old growth by EVC for 2019 337](#_Toc33002155)

[2. EPBC Act listed threatened flora and fauna species known or likely to occur in Victorian RFA regions 350](#_Toc33002156)

[3. EPBC Act listed ecological communities 367](#_Toc33002157)

[4. Extent of EPBC Act listed forest-dependent species suitable habitat within the CAR reserve system (forest-dependent species as identified in the VEAC 2017 Conservation Values of State Forests Report) 369](#_Toc33002158)

[5. EVC extent and conservation status of EVCs by RFA across the CAR reserve system 377](#_Toc33002159)

[6. Wetland type within the CAR reserve system 2018 405](#_Toc33002160)

[7. Special Water Supply Catchment Areas across the RFA regions (CRA) 409](#_Toc33002161)

[8. Harvest data per RFA and by species group 417](#_Toc33002162)

Acronyms and abbreviations

|  |  |
| --- | --- |
| AA | Alpine Ash |
| ABARES | Australian Bureau of Agricultural and Resource Economics and Sciences |
| ABS | Australian Bureau of Statistics |
| AHC Act | *Australian Heritage Commission Act 1975* (Cth) |
| ANZECC | Australian and New Zealand Environment and Conservation Council |
| AO | Allocation Order |
| ARI | Arthur Rylah Institute |
| ASOFR | Australian State of the Forests Report |
| AUSLIG | Australian Surveying and Land Information Group |
| BRRAT | Bushfire Rapid Risk Assessment Team |
| CAM | Common Assessment Method |
| CAM MOU | Intergovernmental Memorandum of Understanding: Agreement on a Common Assessment Method for Listing of Threatened Species and Threatened Ecological Communities |
| CAPAD | Collaborative Australian Protected Area Database |
| CAR | comprehensive, adequate and representative (reserve system) |
| CFA | Country Fire Authority |
| CH | Central Highlands |
| CMA | Catchment Management Authority |
| CRA | Comprehensive Regional Assessment |
| CRC | Cooperative Research Centre |
| CSIRO | Commonwealth Scientific and Industrial Research Organisation |
| Cth | Commonwealth (of Australia) |
| DC | Designated Catchment |
| DELWP | Victorian Department of Environment, Land, Water and Planning |
| DEPI | Victorian Department of Environment and Primary Industries (No longer active - the forestry responsibilities of DEPI moved to DEDJTR in late 2014. In 2018, these moved to DJPR.) |
| DEWHA | Australian Government Department of the Environment, Water, Heritage and the Arts (No longer active 2007-2010) |
| DJPR | Victorian Department of Jobs, Precincts and Regions |
| DoEE | Australian Government Department of the Environment and Energy |
| DSE | Victorian Department of Sustainability and Environment (No longer active 2002-2013) |
| DSEWPaC | Australian Government Department of Sustainability, Environment, Water, Population and Communities (No longer active 2010-2013) |
| DTF | Victorian Department of Treasury and Finance |
| EG | East Gippsland |
| EPBC Act | *Environment Protection and Biodiversity Conservation Act 1999* (Cth) |
| ERF | Emissions Reduction Fund |
| ESFM | ecologically sustainable forest management |
| ESP Act | *Endangered Species Protection Act 1992* (Cth) |
| EVC | ecological vegetation class |
| FAO | Food and Agriculture Organization of the United Nations |
| FAP | Forest Audit Program |
| FFG Act | *Flora and Fauna Guarantee Act 1988* (Vic.) |
| FFMVic | Forest Fire Management Victoria |
| FMA | Forest Management Area |
| FMP | forest management plan |
| FMZ | forest management zone |
| FSC | Forest Stewardship Council |
| FTE | full-time equivalent |
| G | Gippsland |
| GMTOAC | Gunditj Mirring Traditional Owners Aboriginal Corporation |
| GMZ | General Management Zone |
| HDM | habitat distribution model |
| HWP | harvested wood products |
| IBVM | integrated biodiversity values model |
| IEC | Index of Estuary Condition |
| ISC | Index of Stream Condition |
| IUCN | International Union for Conservation of Nature |
| IWC | Index of Wetland Condition |
| JANIS | Joint ANZECC/MCFFA National Forest Policy Statement Implementation Sub-committee |
| LGA | local government area |
| LiDAR | Light Detection and Ranging |
| LOS | Levels of Service |
| MA | Mountain Ash |
| MCFFA | Ministerial Council on Forestry, Fisheries and Aquaculture |
| MIS | managed investment scheme |
| MLE | multiple lines of evidence |
| MNES | matters of national environmental significance |
| MOG | modelled old growth |
| MOU | memorandum of understanding |
| MSP | Management Standards and Procedures |
| NE | North East |
| NFI | National Forest Inventory |
| NFPS | *National forest policy statement* |
| NPI | National Plantation Inventory |
| NRS | National Reserve System |
| NWI | National Wilderness Inventory |
| OCR | Office of the Conservation Regulator |
| R&D | research and development |
| RCP | Representative Concentration Pathway |
| RFA | Regional Forest Agreement |
| RFA Act | *Regional Forest Agreements Act 2002* (Cth) |
| RPP | Parks Victoria Research Partners Program |
| SAP | Special Area Plan |
| SFM | Sustainable Forest Management |
| SFRI | Statewide Forest Resource Inventory |
| SFT Act | *Sustainable Forests (Timber) Act 2004* (Vic.) |
| SIA | Social Impact Assessments |
| SMP | Strategic Management Prospects |
| SMZ | Special Management Zone |
| SOFR | State of the Forests Report |
| SPZ | Special Protection Zone |
| SWP | secondary wood products |
| SWSC | Special Water Supply Catchment |
| TAP | threat abatement plan |
| TRP | Timber Release Plan |
| TUP | Timber Utilisation Plan |
| UNESCO | United Nations Educational, Scientific and Cultural Organisation |
| VAGO | Victorian Auditor General’s Office |
| VBA | Victorian Biodiversity Atlas |
| VEAC | Victorian Environmental Assessment Council |
| VFMP | Victorian Forest Monitoring Program |
| VROTpop | Victorian Rare and Threatened Plant Population monitoring database |
| VSOFR | Victorian State of the Forests Report |
| W | West |
| WUP | Wood Utilisation Plan |

Introduction

Between 1997 and 2000, the State of Victoria and the Commonwealth of Australia (i.e. ‘the Parties’) entered into five Regional Forest Agreements (RFAs). The Victorian RFAs are long-term bilateral agreements that strike a balance between the environmental, social and economic uses of forests. The full definition of an RFA (section 4 of the *Regional Forest Agreements Act 2002* (Cth)) is provided below:

RFA or Regional Forest Agreement means an agreement that is in force between the Commonwealth and a State in respect of a region or regions, being an agreement that satisfies all the following conditions:

(a) the agreement was entered into having regard to assessments of the following matters that are relevant to the region or regions:

(i) environmental values, including old growth, wilderness, endangered species, national estate values and World Heritage values;

(ii) indigenous heritage values;

(iii) economic values of forested areas and forest industries;

(iv) social values (including community needs);

(v) principles of ecologically sustainable management;

(b) the agreement provides for a comprehensive, adequate and representative reserve system;

(c) the agreement provides for the ecologically sustainable management and use of forested areas in the region or regions;

(d) the agreement is expressed to be for the purpose of providing long‑term stability of forests and forest industries;

(e) the agreement is expressed to be a Regional Forest Agreement.

The Australian and Victorian governments will extend the Victorian RFAs before they expire on 31 March 2020.

The five Victorian RFAs were among 10 that were signed between the Commonwealth and each of four states – New South Wales, Tasmania, Victoria and Western Australia – between 1997 and 2001.

The Victorian RFAs were signed following Comprehensive Regional Assessments (CRAs) of the Central Highlands, East Gippsland, Gippsland, North East and West regions, which provided an information base to evaluate the economic, social, environmental and heritage uses and values of the forests in each RFA region.

Experts contributing to the CRAs came from such fields as archaeology, botany, forest ecology, geography, geology, geomorphology, hydrology and soil science, as well as economics, regional development and social planning. The CRAs were a result of detailed study, consultation and negotiation with a diverse range of stakeholders.

The CRAs were described in the 1996 scoping agreement for the Victorian RFAs and covered:

* Biodiversity
* Old growth
* Wilderness
* Endangered species
* National estate values
* World Heritage values
* Indigenous heritage
* Social values
* Economic values and industry development opportunities in forested areas
* Ecologically sustainable management

These matters were subsequently incorporated into para. (a) of the definition of ‘Regional Forest Agreement’ or ‘RFA’ in section 4 of the *Regional Forest Agreements Act 2002* (Cth)(RFA Act). The RFA Act gives effect to certain obligations of the Commonwealth under the RFAs and certain aspects of the *National forest policy statement* (NFPS).

The Parties have committed to a process that ensures that:

* the overarching purpose and objectives of the RFAs remain unchanged;
* the amended RFAs will continue to maintain their existing spatial boundaries; and
* forest management is adaptive and underpinned by a strong scientific evidence base, while also addressing community needs.

When considering changes to the RFA, the Parties will consider the outcomes of the consultation and engagement process and this further assessment of matters. The purpose of this document is to provide an updated assessment of the matters listed in para. (a) of the definition of an RFA. This will support the decision by the Parties to enter into the proposed extension of the RFAs.

This document considers the applicability of the findings of the CRAs, the current status of the values and the likely impact of the extension of the RFAs on those values.

This document provides information about relevant Victorian RFA matters, including the state of environmental, economic, social and heritage values. Australia uses the internationally agreed Montréal Process criteria and Indicators for the Conservation and Sustainable Management of Temperate and Boreal Forests as the framework for reporting on sustainability. This framework for ecologically sustainable forest management (ESFM) covers all of the matters listed in para. (a) of the definition of ‘RFA’ in the RFA Act, and therefore provides the performance criteria for the assessment in this report.

The assessment undertaken in this document demonstrates that the Parties have, through a comprehensive and diverse range of processes, had ongoing regard to the listed matters in para. (a) of the definition of ‘RFA’ in the RFA Act relevant to the Victorian RFA regions. The recitals in each Victorian RFA (except East Gippsland) state that the agreement has regard to studies and projects carried out in relation to all of the following matters relevant to the region’ (followed by a list of the matters referred to in para. (a) of the definition of ‘RFA’ in the RFA Act).

This report builds upon and considers the CRA assessment previously undertaken for the Victorian RFAs, along with other relevant assessments, five-yearly reviews, reports, investigations, studies and information prepared by or for Victoria and/or the Commonwealth.

It is not a replacement for other reviews that have been done relating to Victorian RFAs or which have included the Montréal Process indicators. Rather, it draws on these sources to identify the state of the matters and how they have changed over the life of the Victorian RFAs.

**Background**

RFAs are a means of balancing environmental, economic and social uses and values of key native forest regions across Australia. They are derived from the NFPS and are formalised in the RFA Act.

The Victorian RFAs provide stability and long-term certainty through access to a sustainable resource base for industry. At the same time, they ensure the protection of biodiversity, old growth and wilderness through a comprehensive, adequate and representative (CAR) reserve system. RFAs recognise and consider the full range of forest values when making forest resource use decisions.

The Victorian RFAs provide for efficient forest management practices within the RFA regions by exempting the areas from duplicative processes and other forms of approval under the *Environment Protection and Biodiversity Conservation Act 1999* (Cth) (EPBC Act) and the *Export Control Act 1982* (Cth) (EC Act).

Forestry operations undertaken in accordance with a RFA do not require additional approvals under Part 3 of the EPBC Act. The inclusion of RFA provisions within the EPBC Act recognises that a CRA was undertaken to address the environmental, economic and social impacts of forestry operations; RFAs have established CAR reserve networks; and forestry operations must adhere to the principles of ESFM.

Rather than being an exemption from the EPBC Act requirements, the establishment of the RFAs constitutes a form of assessment and approval. The exceptions are forestry operations within World Heritage properties or Ramsar wetland sites, where assessment and approval is required.

The Parties entered into the Victorian RFAs as follows:

* East Gippsland on 3 February 1997
* Central Highlands on 27 March 1998
* North East on 9 August 1999
* West Victoria on 31 March 2000
* Gippsland on 31 March 2000

The Victorian RFAs established an agreed framework for ESFM and use of forests in those regions. The Parties have agreed that the objectives of the RFAs are to:

* identify areas required for the purposes of a CAR reserve system and provide for the conservation of those areas
* provide for the ecologically sustainable management and use of forested area in those regions
* provide for the long-term stability for forests and forest industries
* have regard to studies and projects carried out in relation to:
  + environmental values (including old growth, wilderness, endangered species, national estate values and World Heritage values)
  + Aboriginal heritage values
  + economic values of forested areas and forest industries
  + social values (including community needs)
  + the principles of ESFM.

In modernising the Victorian RFAs, the Parties have maintained the objectives of the agreements. The Parties also made a range of improvements to address new information and data, and views raised by public engagement and the various consultative reviews, consistent with continual improvement. These improvements include:

* reflecting contemporary legalisation, policy and institutional arrangements
* simplifying and harmonising the Victorian RFA framework
* increasing the transparency and durability of forest management
* improving engagement and communication.

The Parties have agreed that the assessment process, outcomes and data collected may be used to support other processes to help achieve objectives of ESFM. The Parties have also stated their intention to modernise and extend the existing Victorian RFAs. In order to inform this process, this document has been developed as an update on matters considered during the CRA process.

On 7 November 2019, the Victorian Government announced *Victoria’s Forestry Plan*, which will transition Victoria’s forest industries from native timber fully to plantation feedstock by 1 July 2030.

**Victorian RFA regions**

The five RFAs in Victoria are: Central Highlands, East Gippsland, Gippsland, North East and West (shown below). The total area and proportion of forest cover is outlined in Table 1.

Table 1: RFA area statement and forest cover

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| RFA area | Total area | Public land | | Private land | | per cent total forested area |
| ‘000 ha | ‘000 ha | per cent forest | ‘000 ha | per cent forest |
| Central Highlands | 1,132 | 623 | 95.41 | 509 | 27.86 | 65.04 |
| East Gippsland | 1,213 | 1,052 | 98.18 | 161 | 48.15 | 91.54 |
| Gippsland | 2,655 | 1,484 | 92.04 | 1,171 | 22.28 | 61.27 |
| North East | 2,317 | 1,255 | 92.25 | 1,063 | 16.41 | 57.47 |
| West | 5,770 | 1,047 | 80.08 | 4,724 | 11.24 | 23.73 |
| Non-RFA | 9,635 | 2,411 | 59.66 | 7,225 | 3.65 | 17.66 |

Source: Data derived from DELWP corporate spatial layers PLM25, FMZ100 and RFA25.

**Method**

This document uses data and information from a range of sources, many of which report using the Montréal Process indicators. This provides consistency over time to compare the relative matters and demonstrate the accumulated changes arising since the commencement of the Victorian RFAs.

The indicators cover all of the matters listed in para. (a) of the definition of ‘RFA’ in the RFA Act and are the agreed framework for ESFM reporting in RFA regions. The principles of ESFM underpin the NFPS, the RFA Act and the Victorian RFAs. These principles are consistent with the criteria established in the Montréal Process, shown in Table 2.

Table 2: Comparison of Montréal Process criteria with the principles of ecologically sustainable forest management used in the Victorian RFAs

| **Montréal Process criteria for sustainable forest management** | **Principles of ecologically sustainable forest management** |
| --- | --- |
| Criterion 1. Conservation of biological diversity | Principle 1: Maintain the full suite of forest values for present and future generations.  Principle 3: Protect and maintain biodiversity.  Principle 9: Utilise the precautionary principle for prevention of environmental degradation. |
| Criterion 2. Maintenance of productive capacity of forest ecosystems | Principle 1: Maintain the full suite of forest values for present and future generations.  Principle 5: Maintain forest ecosystem health and vitality. |
| Criterion 3. Maintenance of ecosystem health and vitality | Principle 1: Maintain the full suite of forest values for present and future generations.  Principle 5: Maintain forest ecosystem health and vitality. |
| Criterion 4. Conservation and maintenance of soil and water resources | Principle 1: Maintain the full suite of forest values for present and future generations.  Principle 6: Protect soil and water resources. |
| Criterion 5. Maintenance of forest contribution to global carbon cycles | Principle 1: Maintain the full suite of forest values for present and future generations.  Principle 7: Maintain forest contribution to global carbon cycles. |
| Criterion 6. Maintenance and enhancement of long-term multiple socioeconomic benefits to meet the needs of societies | Principle 1: Maintain the full suite of forest values for present and future generations.  Principle 2: Maintain and enhance long-term multiple socio-economic benefits to meet the needs of societies.  Principle 8: Maintain natural and cultural heritage values. |
| Criterion 7. Legal, institutional and economic framework for forest conservation and sustainable management | Principle 1: Maintain the full suite of forest values for present and future generations  Principle 2: Maintain and enhance long-term multiple socio-economic benefits to meet the needs of societies.  Principle 3: Protect and maintain biodiversity.  Principle 8: Maintain natural and cultural heritage values. |

Table 3shows the relationship between individual indicators under the Montréal Process criteria, and RFA matters for consideration in the RFA Act.

Where possible and appropriate, this document provides indicator information at discrete points over the life of the Victorian RFAs at an RFA regional level.

Some data is not available or is not meaningful at the regional level. In these cases, information may be presented on a state or national basis.

Where information has not been reported over time, or has not been reported on a consistent basis, notes to this effect are included under the individual indicators.

Table 3: Relationship between listed matters in the RFA Act and Montréal Process indicators

| **Montréal Process indicator** | **Relevant matter in para. (a) of the definition of ‘RFA’ in the RFA Act  (best match(es) shown as shaded boxes)** | | | | |
| --- | --- | --- | --- | --- | --- |
| 4(a)i  environmental values, (including old growth, wilderness, endangered species, national estate and World Heritage values) | 4(a)ii  indigenous heritage values | 4(a)iii  economic values of forested areas and forest industries | 4(a)iv  social values (including community needs) | 4(a)v  principles of ecologically sustainable management |
| **1.1 Ecosystem diversity** | | | | | |
| 1.1a Area of forest by forest type and tenure |  |  |  |  |  |
| 1.1b Area of forest by growth stage |  |  |  |  |  |
| 1.1c Area of forest in protected area categories |  |  |  |  |  |
| 1.1d Fragmentation of forest cover |  |  |  |  |  |
| **1.2 Species diversity** | | | | | |
| 1.2a Forest-dwelling species for which ecological information is available |  |  |  |  |  |
| 1.2b The status of forest-dwelling species at risk of not maintaining viable breeding populations, as determined by legislation or scientific assessment |  |  |  |  |  |
| 1.2c Representative species from a range of habitats monitored at scales relevant to regional forest management |  |  |  |  |  |
| **1.3 Genetic diversity** | | | | | |
| 1.3a Forest associated species at risk from isolation and the loss of genetic variation, and conservation efforts for those species |  |  |  |  |  |
| 1.3b Native forest and plantations of indigenous species which have genetic resource conservation mechanisms in place |  |  |  |  |  |
| **2 Maintenance of productive capacity of forest ecosystems** | | | | | |
| 2.1a Native forest available for wood production, area harvested and growing stock of merchantable and non-merchantable tree species |  |  |  |  |  |
| 2.1b Age class and growing stock of plantations |  |  |  |  |  |
| 2.1c Annual removal of wood products compared to the volume determined to be sustainable for native forests and future yields for plantations |  |  |  |  |  |
| 2.1d Annual removal of non-wood products compared to the level determined to be sustainable |  |  |  |  |  |
| 2.1e The area of native forest harvested and the proportion of that effectively regenerated and the area of plantation clear-fell harvested and the proportion of that effectively re-established |  |  |  |  |  |
| **3 Maintenance of ecosystem health and vitality** | | | | | |
| 3.1a Scale and impact of agents and processes affecting forest health and vitality |  |  |  |  |  |
| 3.1b Area of forest burnt by planned and unplanned fire |  |  |  |  |  |
| **4 Conservation and maintenance of soil and water resources** | | | | | |
| 4.1a Area of forest land managed primarily for protective function |  |  |  |  |  |
| 4.1b Management of the risks of soil erosion and the risks to soil physical properties, water quantity and water quality in forests |  |  |  |  |  |
| **5 Maintenance of forests’ contribution to global carbon cycles** | | | | | |
| 5.1a Total forest ecosystem biomass and carbon pool |  |  |  |  |  |
| **6.1 Production and consumption** | | | | | |
| 6.1a Value and volume of wood and wood products |  |  |  |  |  |
| 6.1b Values, quantities and use of non-wood forest products |  |  |  |  |  |
| 6.1c Value of forest-based services |  |  |  |  |  |
| 6.1d Production and consumption and import/export of wood, wood products and non-wood products |  |  |  |  |  |
| 6.1e Degree of recycling of forest products |  |  |  |  |  |
| **6.2 Investment in the forest sector** | | | | | |
| 6.2a Investment and expenditure in forest management |  |  |  |  |  |
| 6.2b Investment in extension and use of new and improved technologies |  |  |  |  |  |
| **6.3 Recreation and tourism** | | | | | |
| 6.3a Area of forest available for general recreation/tourism |  |  |  |  |  |
| 6.3b Range and use of recreational/tourism activities available |  |  |  |  |  |
| **6.4 Cultural, social and spiritual needs and values** | | | | | |
| 6.4a Area of forest to which Indigenous people have use rights that protect their special values and are recognized through formal and informal management regimes |  |  |  |  |  |
| 6.4b Registered places of non-indigenous cultural values in forests that are formally managed to protect those values |  |  |  |  |  |
| 6.4c The extent to which indigenous values are protected, maintained and enhanced through indigenous participation in forest management |  |  |  |  |  |
| 6.4d The importance of forests to people |  |  |  |  |  |
| **6.5 Employment and community needs** | | | | | |
| 6.5a Direct and indirect employment in the forest sector |  |  |  |  |  |
| 6.5b Wage rates and injury rates within the forest sector |  |  |  |  |  |
| 6.5c Resilience of forest-dependent communities to changing social and economic conditions |  |  |  |  |  |
| 6.5d Resilience of forest-dependent indigenous communities to changing social and economic conditions |  |  |  |  |  |
| **7 Legal, institutional and economic framework for forest conservation and sustainable management** | | | | | |
| 7.1a Extent to which the legal and policy framework supports the conservation and sustainable management of forests |  |  |  |  |  |
| 7.1b Extent to which the institutional framework supports the conservation and sustainable management of forests |  |  |  |  |  |
| 7.1c Extent to which the economic framework supports the conservation and sustainable management of forests |  |  |  |  |  |
| 7.1d Capacity to measure and monitor changes in the conservation and sustainable management of forests |  |  |  |  |  |
| 7.1e Capacity to conduct and apply research and development aimed at improving forest management and delivery of forest goods and services |  |  |  |  |  |