AS/NZS 4708:2021

Australian/New Zealand Standard™

Sustainable forest management -requirements

This joint Australian/New Zealand Standard was prepared by the Standards Reference Committee SRC AS/NZS 4708 of Responsible Wood (The Australian Forestry Standard Ltd trading as Responsible Wood). As an accredited Standards Development Organisation, Responsible Wood develops and publishes Australian/New Zealand Standards. This Standard was approved by the Responsible Wood Board on 19th October 2021 and the New Zealand Standards Approval Board on 1st December 2021.

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The following are represented on the Standard Reference Committee responsible for this Australian/New Zealand Standard:

Australian Association of Accredited Certification Bodies
Australian Forest Growers
Australian Forest Products Association
Construction, Forestry, Maritime, Mining and Energy Union
CSIRO
Environmental Farmers Network
Federation of Māori Authorities
First Union
Independent Biodiversity Expert
Institute of Foresters of Australia
National Retailers Association
National Timber Council Association
New Zealand Farm Forest Association
New Zealand Forest Certification Association
New Zealand Forest Owners Association
New Zealand Institute of Forestry
New Zealand Ministry of Primary Industries
New Zealand Timber Industry Federation
Scion (New Zealand Forest Research Institute Limited)
Southcoast Natural Resource Management
South East Timber Association
University of the Sunshine Coast
University of Melbourne
Wood Processors and Manufacturers Association of New Zealand

Additional Interests
Independent Chairperson

Responsible Wood wishes to acknowledge the participation of the expert individuals that contributed to the development of this Standard through their representation on the Committee and through the public comment period.

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Australian/New Zealand Standard™

Sustainable forest management — requirements

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Preface

This joint Australian/New Zealand Standard was prepared by the Standard Reference Committee (SRC AS/NZS 4708), a technical committee established for this purpose under the accredited Standards Development Organisation — Responsible Wood.

The objective of this Standard is to provide forest managers with cultural, economic, environmental and social requirements that support the sustainable management of forests. This Standard, formerly known as the Australian Forestry Standard, was first published as an interim Australian Standard® in 2003, a full Australian Standard® in 2007 and a second edition published in 2013. The Australian Standard was adopted with amendments in New Zealand as NZ AS 4708 in 2014. This edition has been developed as a joint Australian and New Zealand Standard and has been reviewed considering stakeholder expectations in both Australia and New Zealand, new scientific and technological information, and changes to international norms for sustainable forest management. It has been published as the Australian and New Zealand Standard® for Sustainable Forest Management.

This Standard replaces AS 4708:2013 and NZ AS 4708:2014.

This major revision has been aligned with the benchmarks for sustainable forest management provided in the Programme for the Endorsement Standard PEFC ST 1003:2018 Sustainable Forest Management Requirements. In addition, it includes new appendices for the sustainable management of trees outside forests and farm forest areas, and requirements for group certification.

Use of the Standard

The Standard recognises that native forests and plantations are managed for a variety of objectives. It sets out specific forest management performance requirements for the defined forest area. It establishes a systematic approach to forest management, including requirements for stakeholder engagement. Independent, accredited third-party certification against the Standard provides a clear and unambiguous statement that a certified forest product was grown and harvested at a location that was managed in accordance with a set of predetermined and clearly defined cultural, economic, environmental, and social requirements that support the sustainable management of forests.

The Standard is intended for voluntary application to any forest area being managed in Australia or New Zealand, regardless of size or ownership, to produce forest products and forest services, whether from native or planted forests. It can be utilised by forest managers who are seeking independent, accredited third-party certification of their forest management system and practices.

Certification to the Standard is a response to market demands that forest products and forest services come from well-managed forests. It aims to support and strengthen processes that deliver improved cultural, economic, environmental, and social outcomes. It is intended to be compatible with relevant international and national policy instruments and has been developed with national and international audiences in mind, as well as for implementation by forest managers in a local or regional setting. The Standard also recognises the importance of meeting both national and international sustainable wood production and marketing requirements, the resource management needs of the industry, as well as promoting voluntary adoption by producers.

In developing the Standard, the AS/NZS 4708 Standards Reference Committee acknowledges the current, future, and potential impacts of climate change on Australian and New Zealand forest landscapes, the risks that climate change poses, and the impacts on sustainable forest management. This Standard provides a framework that supports efforts to mitigate climate

change by reducing emissions, acknowledging and adopting the contribution of science, allowing the timely implementation of improved and better practices and promoting adaptations to change. This is reflected in a range of performance requirements listed in Sections 10.3, 11.1, 11.2, 11.3 and 11.4.

Forest owners or managers can form group forest certification schemes that can be certified to this Standard. Appendix B provides requirements for group forest management system management and certification.

The Standard relates to forest management operations and activities within the defined forest area and to forest products while under the control of the forest manager's chain of custody. Also, some off-site effects of forest management, including impacts on stakeholders and adjacent environments, are addressed under the Standard.

The Standard provides a framework for the site-specific requirements for forest types, communities or individual operations. The Standard requires research, monitoring and evaluation of the outcomes of forest management and the review and continual improvement of the management system.

Certification to the Standard is voluntary, and only achieved and retained based on audits undertaken by an independent third-party audit team from an accredited certification body, where their outcomes conclude a demonstration that the assessed management system is capable of achieving the requirements of the Standard across the defined forest area.

The Standard is intended to support the regulatory framework within which a forest manager operates. Audits to the Standard assess conformance to a suite of requirements that support the achievement of sustainable forest management. A forest manager must comply with all legal requirements and demonstrate conformance with the Standard to gain benefits from certification.

Note: In this context, conformance is the voluntary adherence to the actions that the forest manager adopts to meet the Standard's performance requirements and that certification audits will assess. Compliance applies to laws and regulations that the forest manager has no option but to follow or to face penalties that are outside of the control of the certification audit processes.

Process of development and revision

This Standard has been prepared by the Standard Reference Committee formed for this purpose (SRC AS/NZS 4708). The Standard Reference Committee is made up of representatives of a broad range of stakeholders covering cultural, economic, environmental, and social interests from Australia and New Zealand.

The requirements of the Standard are consistent with the International Organization for Standardization (ISO) environmental management system (EMS) Standard AS:NZS ISO 14001:2016, the Montreal Process criteria and indicators for temperate and boreal forests, the Programme for the Endorsement of Forest Certification Schemes' (PEFC) standard for sustainable forest management (PEFC ST 1003:2018), and Joint Accreditation System of Australia and New Zealand (JAS-ANZ) Requirements for Bodies Certifying Forest Management Systems. This Standard may be applied as the forest management standard of the Responsible Wood Certification Scheme.

These processes provide a basis for the development of the Standard that is compatible with other national and international schemes and standards that aim to support and achieve sustainable forest management.

Structure of Standard

The Standard consists of:

(a) an introduction that describes the rationale for a forest management standard; the process for its development, including its structure, content, and use; and

(b) normative requirements and definitions. The Standard is made up of criteria that specify the principles required for sustainable forest management and normative requirements that are audited to demonstrate conformance. Each criterion and requirement are named with a heading and number.

Introduction

Sustainable forest management is the management of forest areas according to the principles of sustainable development. Sustainable development is resource use that aims to meet human needs while conserving cultural and environmental values, so that these needs can be met not only in the present, but also for generations to come.

There are four elements of sustainable forest management that are embraced by this Standard:

(a) cultural sustainability;

(b) economic sustainability;

(c) environmental sustainability; and

(d) social sustainability.

Cultural sustainability entails maintaining or enhancing the cultural capital of the community. Cultural capital refers to the collective wisdom of knowledge holders, cultural practices and related environmental assets valued by communities and handed down from generation to generation by various means.

Economic sustainability entails optimising the economic benefits for income, employment, and goods and services from the mixture of forest uses within ecological constraints. It requires that benefits to the forest manager, workers and the communities where they live exceed the costs incurred, and that some form of equivalent capital is handed down from one generation to the next so that use of the forest does not preclude utilisation options for future generations.

Environmental sustainability entails maintaining, enhancing or restoring:

(a) the ecological processes within forest ecosystems;

(b) the forest soil and geological features;

(c) food chains and energy flows;

(d) carbon, nutrient and water cycles; and

(e) the biodiversity of forest ecosystems.

Social sustainability entails maintaining or enhancing the net social benefit derived from the mixture of forest uses while maintaining options for the future. An activity is socially sustainable if it conforms to ethical values, community social norms and upholds human rights' standards.

This Standard also incorporates forest certification principles, which are based on the following factors underlying the three principles of:

Governance:

(a) being independent and impartial, including a clear separation between development of standards and accreditation of certification bodies;

(b) complying with, and where reasonable, exceeding legal and other requirements; and

(c) involving competent national accreditation bodies and independent, accredited third-party certification bodies.

Quality:

(a) being scientifically based;

(b) incorporating Indigenous peoples' traditional values, knowledge, practice and aspirations;

(c) incorporating performance levels at appropriate scales through an open process involving all interested stakeholders;

(d) being based on the principles of sustainability;

(e) being compatible with internationally recognised management systems;

(f) being easily understood and leading to the same results when used by different certification bodies; and

(g) being regularly assessed, revised and updated in the light of new knowledge as part of a continual improvement process.

Inclusiveness and transparency:

(a) having transparent, inclusive and understandable processes that are accessible to all stakeholders;

(b) being accessible to stakeholders with a balance of interests;

(c) being voluntary and including the participation of forest managers;

(d) accommodating all forest types, scales and ownership structures; and

(e) enabling affordability of certification while not adversely affecting the competitiveness of forest products in comparison to other materials.

Section 1 Scope and general

1.1 Scope

This Standard specifies cultural, economic, environmental and social criteria and system performance requirements for the production of forest products and forest services that support continual improvement towards sustainable forest management.

This Standard can be applied to any defined forest area irrespective of scale or type of ownership, or whether native forest or plantation. A forest manager seeking independent, third-party certification, shall demonstrate conformance with the requirements of each criterion.

1.2 Application

The requirements are applicable only where relevant to the actual operations of the forest manager, scope and to their defined forest area. The scale and intensity of activity within the defined forest area, organisation and impacts on the identified aspects of forest management can be considered in the application of the requirements. The Standard promotes a precautionary approach and incorporates its application to sustainable forest management.

The Standard applies to the activities of the forest manager relevant to the scope of certification. It encompasses the management of forests within the defined forest area and includes performance standards and requirements in relation to the harvest and sale of certified forest products. It provides the first link in the 'Chain of custody' supply chain.

The requirements within this Standard can be separated into five main sections:

- The Plan-Do-Check-Act model (Sections 1–10)
- Sustainability Criteria (Section 11)
- Requirements for group certification schemes (Appendix B)
- Normative appendices (Appendices B and D)
- Informative appendices (Appendices A and C)

1.2.1 The Plan-Do-Check-Act model

Sections 4 to 10 of the Standard outline the underpinning system requirements that forest managers are required to implement to manage and improve performance. The system requirements should be applied to the management of sustainability criteria outlined in Section 11.

The basis for the approach underlying a sustainable forest management system outlined in this Standard is founded on the concept of adaptive management and the Plan-Do-Check-Act model (PDCA). The PDCA model provides an iterative process used by organisations to achieve continual improvement. It can be applied to a forest management system and to each of its individual elements, including the sustainability criteria outlined in Section 11. It can be briefly described as follows:

a) Plan: establish objectives and processes necessary to deliver results in accordance with the organisation's sustainable forest management policy.
b) Do: implement the processes as planned.
c) Check: monitor and measure processes against the sustainable forest management policy, including its commitments, sustainability objectives and operating criteria, and report the results.
d) Act: take actions to continually improve.

Figure 1 shows how the framework introduced in this Standard could be integrated into a PDCA model, which can help new and existing users to understand the importance of a systems approach.

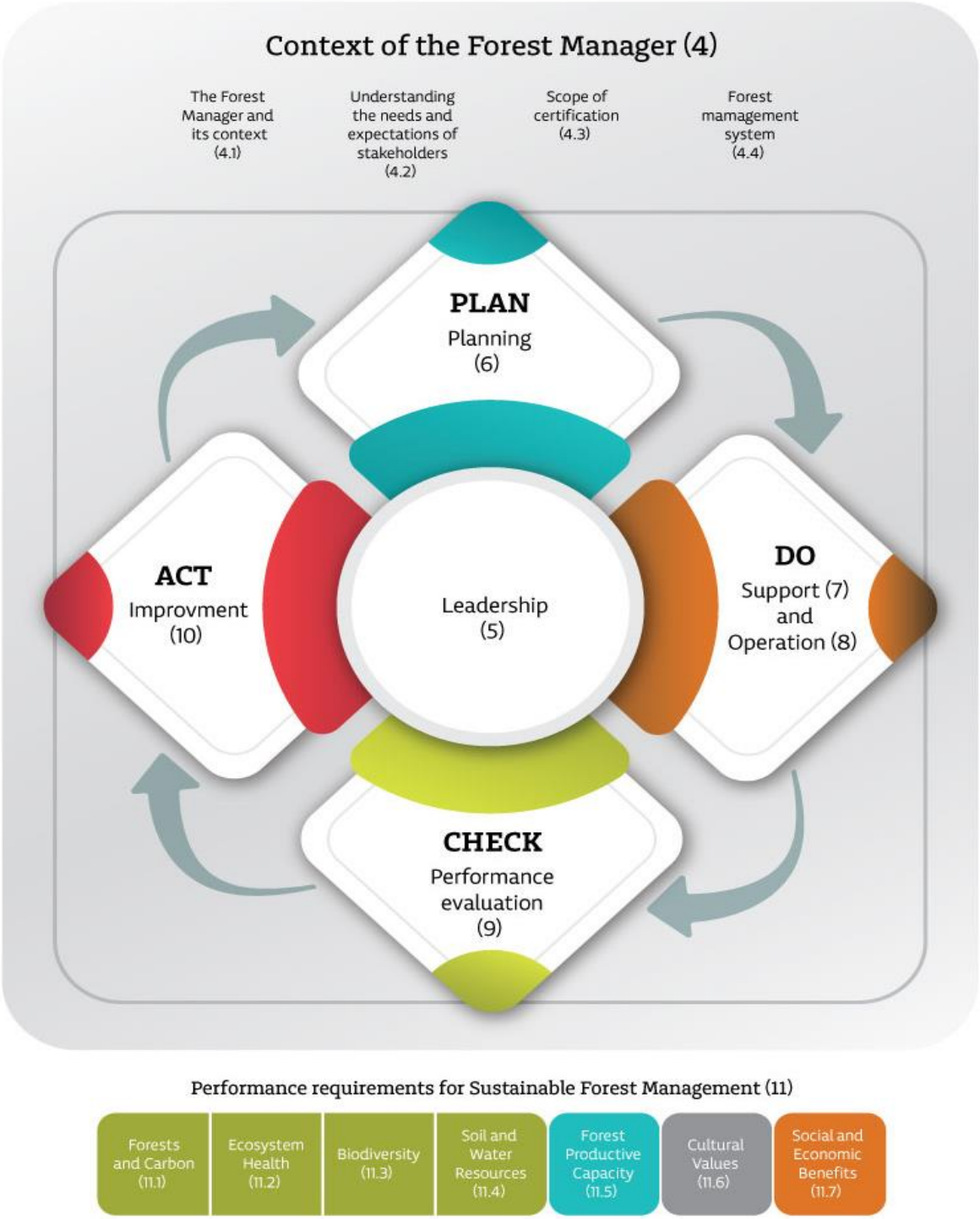

Figure 1: Overview of the Forest Management System

In this Standard, the following verbal forms are used:

— ‘shall’ indicates a requirement;

— ‘should’ indicates a recommendation;

— ‘may’ indicates a permission;

— ‘can’ indicates a possibility or a capability.

Information marked as ‘Note’ is intended to assist the understanding or use of the Standard.

Interpretations for trees outside forests and farm forests

Guidance to interpret this Standard for trees outside forests (TOF) and farm forests are outlined in Appendix A to this document. All requirements within this Standard referring to ‘forest/s’ are in principle applicable to trees outside forests and farm forests. Appendix A provides guidance to the interpretation of specific requirements that may not be applicable in some justified circumstances.

Group forest management requirements

Requirements for group sustainable forest management are provided in Appendix B.

Section 2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document:

Note: Documents for informative purposes are listed in the Bibliography.

Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) 1973, as amended, UNTS 993, entered into force July 1, 1975

The International Labour Organization (ILO) Fundamental Conventions:

(a) Freedom of Association and Protection of the Right to Organise Convention, 1948 (No. 87)

(b) Right to Organise and Collective Bargaining Convention, 1949 (No. 98)

(c) Forced Labour Convention, 1930 (No. 29) (and its 2014 Protocol)

(d) Abolition of Forced Labour Convention, 1957 (No. 105)

(e) Minimum Age Convention, 1973 (No. 138)

(f) Worst Forms of Child Labour Convention, 1999 (No. 182)

(g) Equal Remuneration Convention, 1951 (No. 100)

(h) Discrimination (Employment and Occupation) Convention, 1958 (No. 111)

Note 1: See https://www.ilo.org.

Note 2: For conventions No 87 and 98 refer to jurisprudence of the Committee on Freedom of Association, to the extent allowed by law.

Note 3: In Australia, further information may be found in the report: CREIGHTON, B. The ILO Declaration on Fundamental Principles and Rights at Work 1998: A report of the Australian Compliance Prepared for the Forest Stewardship Council of Australia, September 2015.

The International Labour Organization (ILO) Indigenous and Tribal Peoples Convention, 1989 (No. 169)

Treaty of Waitangi

United Nations Declaration on the Rights of Indigenous Peoples, A/61/L.67, adopted by the General Assembly 13 September 2007

Universal Declaration on Human Rights 1948, as amended, G.A. res. 217A (III), U.N. Doc A/810 at 71, entered into force 10 December 1948

Section 3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

ISO and IEC maintain terminological databases for use in standardisation at the following addresses:

IEC Electropedia: available at http://www.electropedia.org/

ISO Online browsing platform: available at http://www.iso.org/obp

3.1

audit

systematic, independent and documented process for obtaining audit evidence and evaluating it objectively to determine the extent to which the audit criteria are fulfilled.

Note 1: An internal audit is conducted by the forest manager itself, or by an external party on its behalf.

Note 2: An audit can be a combined audit (combining two or more disciplines).

Note 3: Independence can be demonstrated by the freedom from responsibility for the activity being audited or freedom from bias and conflict of interest.

Note 4: 'Audit evidence' consists of records, statements of fact or other information which are relevant to the audit criteria and are verifiable; and 'audit criteria' are the set of policies, procedures, requirements or sustainability requirements used as a reference against which audit evidence is compared, as defined in ISO 19011:2011, Clause 3.3 and Clause 3.2 respectively.

3.2

biodiversity

diversity of native plants, animals and other living organisms in all their forms and levels of organisation, including the diversity of genes (or units of heredity), species and ecosystems. It also includes the composition, structure and function of ecosystems and the evolutionary and functional processes that link them.

3.3

chain of custody

process of tracking wood and forest products originating in sustainably managed forests through all phases of ownership, transportation and manufacturing from the defined forest area to the final product and delivery to the end consumer.

3.4

competence

ability to apply knowledge and skills to achieve intended results.

3.5

competent worker

person who is not under training or supervision and can safely and productively perform the tasks assigned to them.

3.6

compliance obligations

legal requirements a forest manager has to comply with, normative documents identified in this Standard, and other requirements that an organisation has to or chooses to comply with.

Note 1: Compliance obligations are related to the scope of the forest management system.

Note 2: Compliance obligations can arise from mandatory requirements, such as applicable laws and regulations, or voluntary commitments, such as organisational and industry standards, contractual relationships, codes of practice and agreements with Indigenous peoples, community groups or non-governmental organisations.

This includes local, state and national legislation applicable to forest management practices; environmental protection; health, safety and labour; and payment of applicable royalties and taxes. Compliance obligations also include the fundamental ILO conventions.

3.7

confidential information

private facts, data and content that, if made publicly available, might put at risk forest values of the organisation, its business interests or its relationships with stakeholders, clients and competitors.

3.8

conformity

fulfilment of a requirement.

3.9

continual improvement

recurring activity to enhance performance.

Note 1: Enhancing performance relates to the use of the forest management system to enhance sustainability performance consistent with the forest manager's sustainable forest management policy.

Note 2: The activity need not take place in all areas simultaneously, or without interruption.

3.10

conversion

direct human-induced change of natural ecosystems to other land use.

EXAMPLE: Native forest to plantation, native grasslands to forest, native forest to agricultural uses.

Note: Regeneration by planting or direct seeding and/or the human-induced promotion of natural seed sources to the same dominant species as was harvested or other species that were present in the historical species mix is not considered a conversion.

3.11

corrective action

action to eliminate the cause of a nonconformity and to prevent recurrence.

Note: There can be more than one cause for a nonconformity.

3.12

cultural sustainability

cultural sustainability entails maintaining or enhancing the cultural capital of the community. Cultural capital refers to the collective wisdom of knowledge holders, cultural practices and

related environmental assets valued by communities and handed down from generation to generation by various means.

3.13

culturally appropriate

approaches for outreach to target groups that are in harmony with the customs, values, sensitivities and ways of life of the target audience.

3.14

damage agent

factor that can cause a reduction to forest values or impact on forest ecosystem health and vitality, including endemic or exotic pest species, and physical processes like climatic events, earthquakes and bushfires/wildfires.

3.15

defined forest area

area (including land and water) to which the requirements of this Standard are applied and over which the forest manager demonstrates control.

Note: Including productive and non-productive forest areas, waterbody reserves, conservation areas, roads, key facilities and infrastructure required to deliver sustainable forest management.

3.16

degraded native vegetation

vegetation that has reduced capacity to provide goods and services because it has lost structure, function, species composition and or productivity normally associated with the vegetation type on that site.

Note 1: A degraded forest requires silvicultural intervention to restore its productivity.

Note 2: In determining 'degraded forest' status the 'vegetation integrity' should be assessed, being the degree to which the composition, structure and function of vegetation at a particular site and the surrounding landscape has been altered from a near natural state. Where native vegetation is present but:

(i) native understorey has been cleared and/or replaced with exotic species, and/or
(ii) where the cover of exotic species exceeds 50% of the dominant stratum, and
(iii) evidence of native species regeneration is sparse or absent.

Native vegetation with low 'vegetation integrity' may still have some biodiversity value in some situations. Also note that in some situations plantations that are deemed 'degraded' or 'failed' may still have value to biodiversity.

3.17

direct dealing

conduct that has the effect of undermining, or is likely to undermine, the authority of the representative organisation of workers which occurs when the forest manager bypasses the representative organisation of workers in order to engage in discussions, bargaining or negotiations with represented workers in relation to matters that fall within the scope of collective bargaining without the participation of the representative organisation of workers.

3.18

documented information

information required to be controlled and maintained by a forest manager (and the medium on which it is contained).

Note 1: Documented information can be in any format and media, and from any source. This will include spatial information.

Note 2: Documented information can refer to:

(a) the forest management system, including related processes;

(b) information created in order for the organisation to operate (can be referred to as documentation); or

(c) evidence of results achieved (can be referred to as records).

3.19

drainage lines

areas of slope convergence where water naturally concentrates and flows.

Note: Drainage lines have an incised channel with defined bed and banks or evidence of active erosion or deposition e.g. gravel, pebble, rock bed or scour.

3.20

economic sustainability

economic sustainability entails optimising the economic benefits for income, employment, and goods and services from the mixture of forest uses within ecological constraints. It requires that benefits to the forest manager, workers and the communities where they live exceed the costs incurred, and that some form of equivalent capital is handed down from one generation to the next so that use of the forest does not preclude utilisation options for future generations.

3.21

effectiveness

extent to which planned activities are realised and planned results achieved.

3.22

environment

surroundings in which a forest manager operates, including air, water, land, natural resources, flora, fauna, humans and their interrelationships.

Note 1: Surroundings can extend from within an organisation to the local, regional and global system.

Note 2: Surroundings can be described in terms of biodiversity, ecosystems, climate or other characteristics.

3.23

equal treatment

acceptable standards of behaviour towards workers regardless of race, colour, sex, gender orientation, age, physical or mental disability, marital status, family or carers' responsibilities, pregnancy, religion, political opinion, union membership, national extraction or social origin.

3.24

establishment

creation of a new forest or plantation arising from the treatment, seeding or planting of a site with trees.

3.25

fair contract

contract that is written and contains no unfair terms.

3.26

fertiliser

organic or inorganic substances containing chemical elements that are applied in order to improve the growth of plants and the fertility of the soil.

3.27

forest

an area of land, incorporating all living and non-living components, that is dominated by trees having usually a single stem and a mature or potentially mature stand height exceeding 2 m and crown cover or potential crown cover of overstorey strata about equal to or greater than 20%.

Note: This definition includes Australia's and New Zealand's diverse native forests and plantations, regardless of age. It is also sufficiently broad to encompass areas of trees that are sometimes described as woodlands.

3.28

forest management unit

an aggregation of blocks with a relatively uniform forest type, for example, species composition, geographical location and silvicultural management regime.

3.29

forest manager

See 3.54 Organisation

3.30

forest products

the physical goods derived from the defined forest area, including all wood and non-wood products.

3.31

forest type

a classification of forests according to their life form, height of the tallest stratum and the projected foliage cover of the tallest stratum.

3.32

fundamental ILO conventions

eight conventions (ILO 29, 87, 98, 100, 105, 111, 138 and 182) identified by the ILO's Governing Body as 'fundamental' in terms of principles and rights at work: freedom of association and the effective recognition of the right to collective bargaining; the elimination of all forms of forced or compulsory labour; the effective abolition of child labour; and the elimination of discrimination in respect of employment and occupation.

3.33

genetically modified trees (organisms)

trees in which the genetic material has been altered in a way that does not occur naturally by mating and/or natural recombination, taking into account applicable legislation providing a specific definition of genetically modified organisms.

Note: The following techniques are considered as genetic modification resulting in genetically modified trees (EU Directive 2001/18/EC):

(a) recombinant nucleic acid techniques involving the formation of new combinations of genetic material by the insertion of nucleic acid molecules produced by whatever means outside an organism, into any virus, bacterial plasmid or other vector system and their incorporation into a host organism in which they do not naturally occur, but in which they are capable of continued propagation;

(b) techniques involving the direct introduction into an organism of heritable material prepared outside the organism, including micro-injection, macro-injection and micro-encapsulation; or

(c) cell fusion (including protoplast fusion) or hybridisation techniques where live cells with new combinations of heritable genetic material are formed through the fusion of two or more cells by means of methods that do not occur naturally.

Note 2: The following techniques are not considered as genetic modification resulting in genetically modified trees (EU Directive 2001/18/EC):

(a) in vitro fertilisation;

(b) natural processes such as conjugation, transduction, transformation; or

(c) polyploidy induction.

3.34

group entity

legal entity that represents the participants, with overall responsibility for ensuring the conformity of forest management in the certified area to the sustainable forest management standard and other applicable requirements of the forest certification system.

Note 1: For this purpose, the group entity is using a group management system.

Note 2: The structure of the group entity should follow the operations, number of participants and other basic conditions for the group organisation. It may be represented by one person.

3.35

group forest certification

certification of the group organisation under one group forest certificate.

Note: Group certification is an alternative approach to individual certification for relatively small forest holdings of Group Members in order to share the financial obligations arising from forest certification and should not be open to larger forest owners or managers.'

3.36

group organisation

participants represented by the group entity for the purposes of implementation of the sustainable forest management standard and its certification.

Note: The term 'group organisation' is equivalent to the term 'regional organisation' if the group is defined by regional boundaries or other terms chosen by the relevant forest certification scheme and complying with the content of this definition.

3.37

harvest rate

rate of harvest that does not exceed levels that can be permanently sustained without negatively impacting the long-term productive capacity of the forest ecosystem.

3.38

hazardous activities

any activity that can pose a high/unreasonable risk of harm to persons or property, including but not limited to:

(a) driving heavy plant or log trucks; or

(b) using hand-held motorised equipment; or

(c) ground-based workers working near heavy plant and tree falling operations; or

(d) transport, handling and application of pesticides.

3.39

highly hazardous pesticides

chemical pesticides that:

(a) are acknowledged to present particularly high levels of acute or chronic hazards to health and environment by exhibiting one or more of the following attributes according to internationally accepted classification systems, or

Where:
Acute toxicity to mammals and birds:
a substance causes harmful or lethal effects following oral, dermal or inhalation exposure in a short space of time.
Chronic toxicity:
substances that cause harmful effects (carcinogenicity, mutagenicity, developmental and reproductive toxicity and endocrine disruptors) over an extended period, usually following repeated or continuous exposure to very low doses.
Carcinogenicity:
the ability of a substance to induce cancer or increase its incidence in humans.
Mutagenicity:
the ability of a substance to induce an increased occurrence of mutations in cells and/or organisms.
Developmental and reproductive toxicity:
the ability of a substance to cause adverse effects on unborn children and induce adverse effects on sexual function and fertility in adults.
Endocrine disruptors:
substances that interfere at very low concentrations with hormones and hormonal balance.
Environmental toxicity:
substances that have harmful effects (aquatic toxicity, persistence in soil or water, soil sorption potential, bioaccumulation and biomagnification) on the environment, threatening ecosystems and/or accumulating in water and soil.
Aquatic toxicity:
the toxic effect of a substance to organisms — vertebrates, invertebrates and plants — living in the aquatic environment.
Persistence in soil or water:
the ability of a substance to resist environmental degradation and accumulate in soil, sediment and aquatic environments.
Soil sorption potential:
a characteristic based on the combination of the persistence and the water solubility of a chemical substance, and its soil sorption coefficient (Koc), which measures the mobility of a substance in soil.

Bioaccumulation:
the increase in the concentration of a substance in a biological organism over time, as the organism absorbs the toxic substance at a rate greater than that at which the substance is eliminated from its body.
Biomagnification:
the increase of the concentration of a substance in the tissues of organisms as it travels up the food chain.

(b) are listed in relevant binding international agreements or conventions,

Where:
relevant international agreements or conventions:
legally binding international instruments put in place by the United Nations to lead to gradual decrease of the presence and trade of hazardous chemicals in the signatory Parties. This Policy considers:
Stockholm Convention on Persistent Organic Pollutants (Stockholm Convention).
Rotterdam Convention on the Prior Informed Consent Procedure. (Annexe III Rotterdam convention)
Montreal Protocol on Substances that Deplete the Ozone Layer (Montreal Protocol).

(c) contain dioxins,

Where:
Dioxins (residues or emissions):
persistent organic pollutants (POPs), that are highly toxic and can cause reproductive and developmental problems, damage the immune system, interfere with hormones and cause cancer,

(d) heavy metals,

Where:
Heavy metals (arsenic, cadmium, lead and mercury):
Systemic toxicants known to induce multiple organ damage, even at lower levels of exposure.

3.40

Indigenous people

people who are:

(a) in Australia, individuals of Australian Aboriginal or Torres Strait Islander descent who identify as being of Aboriginal or Torres Strait Islander origin; or

(b) in New Zealand individuals of Māori and or Moriori descent who identify as being of Māori and or Moriori origin'

3.41

Indigenous rights

Indigenous peoples and individuals are free and equal to all other peoples and individuals and have the right to be free from any kind of discrimination, in the exercise of their rights, in particular that based on their Indigenous origin or identity.

[SOURCE: Declaration on the Rights of Indigenous Peoples, Article 2]

3.42

infrastructure

any fixed location asset that a forest manager uses in order to carry out its activities.

EXAMPLE: Building, communication network/facility/easement, depot, energy supply with associated easement, fence, fire tower, nursery, product storage area, quarry, transport network (including roads, bridges, culverts, landing strips) and water storage facilities.

3.43

integrated pest management

an ecosystem approach to forest production and protection that combines different management strategies and practices e.g. silvicultural alternatives and other biological measures, to grow healthy forests and minimise the use of pesticides.

Note: Integrated pest management control methods include, but are not limited to:

(a) plant resistance;

(b) plant choice for refuge or trap crops;

(c) biological control, including predators, beneficial pests and pathogens;

(d) pheromone control;

(e) physical barriers and traps;

(f) fallow management;

(g) tolerance of non-economic damage; and

(h) chemical control (as a last resort).

3.44

invasive species

species occurring, as a result of human activities, beyond its accepted normal distribution and/or abundance which threatens valued environmental, agricultural or other social resources by the damage it causes.

Note 1: Invasive species may have a major impact on biodiversity and reducing overall species abundance and diversity.

Note 2: CBD (Convention on Biological Diversity) Guiding Principles for the Prevention, Introduction and Mitigation of Impacts of Alien Species that Threaten Ecosystems, Habitats or Species are recognised as guidance for avoidance of invasive species.

3.45

inventory

systematic collection of data and forest information for assessment or analysis.

3.46

living wage

remuneration received for a standard work week by a worker in a particular place sufficient to afford a decent standard of living for the worker and her or his family.

Note 1: Elements of a decent standard of living include food, water, housing, education, health care, transport, clothing, and other essential needs, including provision for unexpected events.

Note 2: In New Zealand the living wage can be obtained from the independently calculated national living wage produced by the New Zealand Family Centre Social Policy Unit at http://www.livingwage.org.nz/

[SOURCE: ISEAL ALLIANCE. A Shared Approach to a Living Wage. ISEAL Living Wage Group, November 2013]

3.47

management system

set of interrelated or interacting elements adopted by a forest manager to establish policies and objectives, and processes to achieve those objectives.

Note 1: A management system can address a single discipline or several disciplines (e.g. quality, environment, occupational health and safety, energy and financial management).

Note 2: The system elements include the organisation's structure, roles and responsibilities, planning and operation, and performance evaluation and improvement.

Note 3: The scope of a management system can include the whole of the organisation, specific and identified functions of the organisation, specific and identified sections of the organisation, or one or more functions across a group of organisations.

3.48

monitoring

determining the implementation and effectiveness of a system, a process or an activity.

Note 1: To determine the effectiveness, there might be a need to check, supervise or critically observe.

Note 2: Monitoring may involve a temporal component.

3.49

native vegetation

any locally indigenous vegetation community containing species and habitats normally associated with that vegetation type.

3.50

nonconformity

non-fulfilment of a requirement.

Note: Nonconformity relates to requirements in this Standard and additional forest management system requirements that a forest manager establishes for itself.

3.51

non-wood products

products consisting of goods of biological origin other than wood, derived from forests and trees outside forest areas.

[SOURCE: following SORRENTI S. 'Non-Wood Forest Products in International Statistical Systems']

3.52

objective

result to be achieved, set by the forest manager consistent with its sustainable forest management policy and the requirements of this Standard.

Note 1: An objective can be strategic, tactical or operational.

Note 2: Objectives can relate to different disciplines (such as financial, health and safety, and environmental goals) and can apply at different levels (such as strategic, organisation-wide, project, product, service and process).

Note 3: An objective can be expressed in other ways e.g. as an intended outcome, a purpose, an operational criterion, a sustainability objective, or by the use of other words with similar meaning (e.g. aim, goal or target).

3.53

old-growth forest

ecologically mature forest in which the effects of disturbances are now negligible.

Note 1: Forest that is ecologically mature and has been subjected to negligible unnatural disturbance, such as logging, roading and clearing.

Note 2: Any method used for identifying ecologically mature forest and disturbance should be appropriate for the forest type. Any mapping should have been validated using field data.

Note 3: The definition of old-growth may be adapted or modified to remain applicable to forest types in a particular jurisdiction. Consideration will be given to such definitions adopted in the relevant jurisdiction.

3.54

organisation

person or group of people that has its own functions with responsibilities, authorities and relationships to achieve its objectives.

Note: The concept includes, but is not limited to, sole trader, company, corporation, firm, enterprise, authority, partnership, charity or institution, or part or combination thereof, whether incorporated or not, public or private.

3.55

outsource

make an arrangement where an external organisation performs part of an organisation's function or process.

Note: An external organisation is outside the scope of the management system, although the outsourced function or process is within the scope.

3.56

performance

measurable result.

Note 1: Performance can relate either to quantitative or qualitative findings.

Note 2: Performance can relate to the management of activities, processes, products (including services), systems or organisations.

3.57

pesticides

chemicals (including herbicides, insecticides and fungicides) used to control biological damage agents.

3.58

pest species

organism detrimental to cultural, economic, environmental and/or social values.

3.59

plantation

stands of trees meeting the definition for forests of either native or exotic species, created by the regular planting, sowing, or control of cuttings, seedlings, seed or coppice.

3.60

precautionary approach

The application of a risk-based methodology, recognising that where there are threats of serious or irreversible damage, a lack of full scientific certainty should not be used as a reason for postponing measures to minimise adverse impacts.

Note 1: Threats of serious or irreversible damage to significant biodiversity values should be considered at the landscape or species-level scale.

Note 2: A precautionary approach, proportionate to the scale and risk of forest management operations, requires:

i) identification of likely threats of serious or irreversible damage resulting from forest management activities;

ii) application of clear measures aimed at prevention of environmental degradation; and

iii) monitoring of effectiveness of measures taken over time, consistent with this Standard (per Section 11.3.8).

3.61

process

set of interrelated or interacting activities that transform inputs into outputs.

Note: A process can be documented or not.

3.62

productive capacity

capacity to produce forest products and forest services.

Note 1: Includes non-wood products and for plantations, alternative crop types.

Note 2: Productive capacity can be applied to non-market benefits such as ecosystem services.

3.63

provenance

original geographic source of seed, pollen or propagules.

3.64

regeneration

new trees arising naturally or with human assistance after harvesting, fire or other causes have removed all or some of the overstorey.

3.65

remnants

original native vegetation remaining in a landscape after the original land clearance/plantation establishment.

Note: A remnant can be of any size or condition.

3.66

requirement

need or expectation that is stated, generally implied or obligatory.

Note 1: 'Generally implied' means that it is customary or common practice for the forest manager and stakeholders that the need or expectation under consideration is implied.

Note 2: A specified requirement is one that is stated, for example, in documented information.

3.67

riparian zone

an area geographically and ecologically associated with a river, waterbody, drainage line or wetland.

3.68

risk

effect of uncertainty.

Note 1: An effect is a deviation from the expected — positive or negative.

Note 2: Uncertainty is the state, even partial, of deficiency of information related to, understanding or knowledge of, an event, its consequence or likelihood.

Note 3: Risk is often characterised by reference to potential 'events' (as defined in ISO Guide 73:2009, 3.5.1.3) and 'consequences' (as defined in ISO Guide 73:2009, 3.6.1.3), or a combination of these.

Note 4: Risk is often expressed in terms of a combination of the consequences of an event (including changes in circumstances) and the associated 'likelihood' (as defined in ISO Guide 73:2009, 3.6.1.1) of occurrence.

3.69

risks and opportunities

potential adverse effects (threats) and potential beneficial effects (opportunities).

3.70

rotation

the planned number of years between regeneration or planting and the subsequent harvesting of a stand of trees.

3.71

school-aged worker

a person under the age of 15 (or the local legal age of completion of compulsory schooling).

3.72

Science based

informed by the systematic and accurate collection of data/evidence/facts and their rational evaluation.

Note: It includes courses of action undertaken on the basis of scientific work by others (e.g. peer reviewed publications and analyses by registered laboratories). It recognises that in the absence of perfect information, 'best practice' may also draw upon other sources of knowledge such as traditional and indigenous knowledge. It recognises that science is provisional and positions need to be re-examined as new evidence comes to light.

3.73

senior management

person or group of people who have day to day responsibility for forest management at the highest level.

Note 1: Senior management has the power to delegate authority and provide resources within the organisation.

Note 2: The scope of the management system covers only part of an organisation, then senior management refers to those who direct and control that part of the organisation.

3.74

significant biodiversity values (SBV)

a term covering any of the following biodiversity values:

1. known or likely occurrences of threatened species and their known and potential habitat;
2. threatened communities (including forest, non-forest and non-terrestrial communities);
3. old-growth forest and/or other forest types which are rare or depleted (generally less than 10% of extant distribution);
4. under-represented vegetation communities:

in Australia,

(A) vegetation communities (including forest, non-forest and non-terrestrial) that are currently reserved at less than 15% of their pre-European distribution or equivalent benchmark time;

(B) old-growth vegetation communities (including forest, non-forest and non-terrestrial communities) that are currently reserved at less than 60% of the extant area;

in New Zealand,

(C) native vegetation associated with land environments (defined by Land Environments of New Zealand at Level IV) that have 20% or less remaining native cover;

5. sensitive ecosystems such as wetlands and karst ecosystems;
6. areas with regionally or nationally significant concentrations of native species that are at risk from current, planned or potential management activities;
7. globally, regionally and nationally significant large intact forest landscapes with natural distribution and abundance of naturally occurring species;
8. disjunct or outlier populations, refugia and centres of endemism;
9. endangered or protected genetic in situ resources and/or other natural areas important for conservation of important genes;
10. areas with significant seasonal concentrations of species' (e.g. areas important to the lifecycle or migration paths of migratory and communal breeding species, including native fish spawning sites); or
11. remnants in extensively cleared landscapes and mature forest in degraded landscapes

Note 1: Centres of endemism are distinct from hot spots (SBV 6) in that they represent areas of special evolutionary history. Centres of endemism may be identified as areas with a high number of endemic species with narrow ranges.

Note 2: The PEFC Ecologically Important Area definition has been incorporated into the SBV definition.

Note 3: recognised and verified publications and regulatory frameworks can be used in determining significant biodiversity values.

3.75

silviculture

science and practice of managing the establishment, growth, composition, health and quality of forests and woodlands.

3.76

social sustainability

social sustainability entails maintaining or enhancing the net social benefit derived from the mixture of forest uses while maintaining options for the future. An activity is socially sustainable if it conforms to ethical values, community social norms and upholds human rights standards.

3.77

stakeholder

person or organisation that can affect, be affected by, or perceive itself to be affected by a decision or activity.

EXAMPLE: Customers, neighbours, communities, suppliers, regulators, non-governmental organisations, investors and employees.

Note: To 'perceive itself to be affected' means the perception has been made known to the organisation.

3.78

stakeholder-affected

groups and individuals who might experience a direct change in living and/or working conditions caused by the actions or inactions of the forest manager.

Note: Affected stakeholders include neighbouring communities, Indigenous peoples and workers.

3.79

stakeholder engagement

interactions with communities and interest groups in deliberation around issues that affect them.

EXAMPLE: Making plans and descriptions of management publicly available, written communication, face-to-face and public meetings, field visits, information signs, media advertisements, and stakeholder or community advisory committees.

3.80

stakeholder-interested

groups and individuals who have interests in the management of the defined forest area but are not directly impacted.

3.81

structural elements

components of habitat determined by their location and arrangement, such as standing and fallen dead wood, hollow bearing trees, rocks and caves.

3.82

sustainability impact

change adverse or beneficial, associated with sustainability requirement(s), wholly or partially resulting from a forest manager's sustainability activities.

3.83

sustainability requirement

need or expectation that is stated within Section 11 of this Standard.

Note 1: A sustainability requirement is a specified forest management system requirement (Clause 6.1).

Note 2: Sustainability requirements are obligatory.

3.84

sustainable forest management policy

intentions and direction of a forest manager related to sustainable forest management, as formally expressed by its senior management.

3.85

thinning

silvicultural treatment made to reduce the stand density of trees to generate a financial return for the forest manager, to improve growth, enhance forest health, and/or recover potential mortality.

3.86

threatened (species, vegetation or ecological communities)

species, vegetation or ecological communities that are facing a high, very high or extremely high risk of extinction in the wild and/or listed under a legal instrument relating to conservation and preservation in the jurisdictions covered by this Standard.

Threatened entities include but are not limited to species and communities that are categorised as rare, conservation dependant, vulnerable, endangered or critically endangered (Australia) or nationally critical, nationally endangered or nationally vulnerable (New Zealand).

Note 1: Examples of the current legal instruments in each jurisdiction that provide the relevant threat status are provided in Appendix C.

Note 2: The term may also cover species and ecosystems that meet the IUCN (2004) Criteria for Vulnerable (VU), Endangered (EN) or Critically Endangered (CR). These IUCN categories may be reinterpreted for the purpose of this Standard according to local conditions and population densities (which should affect decisions about appropriate conservation measures).

[SOURCE: Based on IUCN Red List Categories and Criteria: Version 3.1. Gland, Switzerland and Cambridge, UK: IUCN Species Survival Commission, 2004].

3.87

threatening process

activity that threatens, or may threaten, the survival, abundance or evolutionary development of a native species or ecological community, including processes listed on current schedules of relevant commonwealth, state or territory legislation.

3.88

traditional uses

natural, cultural, social, recreational, religious and spiritual heritage uses, with habitual, continuous or customary history across generations.

3.89

trees outside forests (TOF)

trees ancillary to the primary land use growing outside areas[note 2] of recognised forest land, for example, farm forests, small forest areas, woodlots and linear plantings (see Appendix A).

Note 1: trees managed by land managers whose primary activity is not forestry related.

Note 2: Such areas will normally be considered as 'agricultural' or 'settlement'.

3.90

waterbody

any body of surface water or natural depression carrying perennial or intermittent flows of surface water, such as lake, river, stream or pond. Includes wetlands.

3.91

waterbody management zone

area around a waterbody or drainage line that is especially managed to protect related environmental values.

Note 1: This zone may include all or part of the ecologically distinct riparian zone and could include up-slope areas.

Note 2: Waterbody management zone is approximately synonymous with buffer strip, buffer zone, machinery exclusion zone, filter strip, streamside reserve, buffer zone and vegetation management zone.

3.92

wetlands
Land consisting of marshes or swamps; saturated land with characteristic vegetation of aquatic plants.

Note: Wetlands contain vascular macrophytic plants that grow in water for all or part of the year. Wetlands can range from fresh to brackish (slightly salty) to saline (salty like sea water).

3.93

wildfire/bushfire/forest fire

unplanned vegetation fire.

3.94

worker

a person who carries out work in any capacity for the organisation and/or its contractors and sub-contractors. See also competent worker.

Section 4 Context of the forest manager

4.1 Understanding the forest manager in its context

The forest manager shall determine external and internal issues that are relevant to its purpose and that affect its ability to achieve the intended outcomes of its forest management system. Such issues shall include cultural, economic, environmental and social conditions being affected by, or capable of affecting the forest manager.

4.2 Understanding the needs and expectations of stakeholders

The forest manager shall:

(a) identify stakeholders;

(b) evaluate which activities are likely to directly impact stakeholders;

(c) determine how they are affected by its operations;

(d) identify the relevant needs and expectations (i.e. requirements) of stakeholders;

(e) identify and justify which of these needs and expectations become its compliance obligations.

4.3 Determining the scope of the certified forest management system

The forest manager shall determine the boundaries and applicability of the forest management system and define its scope.

When determining this scope, the forest manager shall consider:

(a) the external and internal issues referred to in Clause 4.1;

(b) the compliance obligations referred to in Clause 4.2;

(c) its defined forest area;

(d) its activities, services and products;

(e) the point of sale or transfer of its products; and

(f) its authority and ability to exercise control and influence.

The forest manager shall demonstrate control and influence through documented legal land ownership or control arrangements and a commitment to sustainable forest management.

The forest manager shall define the scope and include all activities, products and services of the forest manager that are within the forest management system.

Note 1: The scope may incorporate activities related to the forest management system and activities conducted at sites outside the defined forest area, for example: administrative offices, depots, workshops, nurseries, freight hubs etc.

Note 2: A commitment to sustainable forest management should be demonstrated by keeping forest areas in the defined forest area at least for the full duration of a certification cycle or providing justification where this is not the case.

Note 3: Not all requirements may be applicable to trees outside forests and farm forests (see Appendix A).

The forest manager shall maintain the scope of forest management and defined forest area as documented information.

Note 1: The forest manager shall notify the certification body of material changes to the scope of certification or defined forest area.

Note 2: A material change is a matter that could change the audit duration or require a special audit.

Note 3: The forest manager should provide the scheme owner details of the defined forest area at least annually.

4.4 Forest management system

The forest manager shall establish, implement, maintain and continually improve a forest management system, including the processes needed and its interactions, in accordance with the requirements of this Standard.

The forest manager shall consider the knowledge gained in Clause 4.1(context), Clause 4.2 (stakeholders) and Clause 4.3 (scope) and the results of scientific research when establishing and maintaining the forest management system.

Section 5 Leadership

5.1 Leadership and commitment

Senior management shall demonstrate leadership and commitment with respect to sustainable forest management by:

(a) taking accountability for the effectiveness of the forest management system;

(b) ensuring that the sustainable forest management policy and sustainability objectives are established and are compatible with the strategic direction and the context of the forest manager;

(c) ensuring the integration of the forest management system requirements into the forest manager's business processes;

(d) ensuring that the resources needed for the forest management system are available;

(e) communicating the importance of effective cultural, economic, environmental and social management and of conforming to the forest management system requirements;

(f) ensuring that the forest management system achieves its intended outcomes;

(g) directing and supporting persons to contribute to the effectiveness of the forest management system;

(h) supporting related research and innovation activities;

(i) promoting continual improvement; and

(j) supporting other relevant management roles to demonstrate their leadership as it applies to their areas of responsibility.

Note: Reference to 'business' in this Standard can be interpreted broadly to mean those activities that are core to the purposes of the forest manager's existence.

5.2 Sustainable forest management policy

Senior management shall establish, implement and maintain a sustainable forest management policy, within the defined scope of its forest management system that:

(a) is appropriate to the purpose and context of the forest manager, including the nature, scale and sustainability impacts of its activities, products and services;

(b) provides a framework for setting sustainability objectives;

(c) includes a commitment to a long-term systematic approach to sustainable forest management, including minimising harm, providing benefits from the forest, and other specific commitment(s) relevant to the context of the forest manager;

(d) includes a commitment to fulfil its compliance obligations, including conformance with the requirements of this Standard;

(e) includes acknowledgement of the positive contribution of stakeholders and a commitment to proactive engagement with stakeholders; and

(f) includes a commitment to continual improvement of the forest management system to enhance its performance.

The sustainable forest management policy shall:

i. be maintained as documented information;

ii. be communicated within the organisation; and

iii. be available to stakeholders.

5.3 Roles, responsibilities and authorities

Senior management shall ensure that the responsibilities and authorities for relevant roles are assigned and communicated within the organisation.

Senior management shall assign the responsibility and authority for:

(a) ensuring that the forest management system conforms to the requirements of this Standard; and

(b) reporting on the performance of the forest management system, including cultural, economic, environmental and social performance, to senior management.

Section 6 Planning

6.1 Actions to address obligations, risks and opportunities

6.1.1 General

The forest manager shall plan to meet compliance obligations and the requirements of this Standard.

When planning, the forest manager shall consider:

(a) compliance obligations;

(b) the issues referred to in 4.1 (context);

(c) the requirements referred to in 4.2 (stakeholders);

(d) the scope of its forest management system and assurance that it can achieve its intended outcomes;

(e) the requirements identified in Section 11 of this Standard and related risks and opportunities for continual improvement in meeting these requirements;

(f) the values of the defined forest area;

(g) abnormal conditions and reasonably foreseeable emergency situations;

(h) their contribution to cumulative landscape or catchment scale impacts; and

(i) change, including planned or new developments, and new or modified activities, products and services.

The forest manager shall maintain documented information of:

i. risks and opportunities that need to be addressed; and

ii. process(es) needed in Clause 6.1 and 6.2, to the extent necessary to have confidence they are carried out as planned.

6.1.2 Compliance obligations

The forest manager shall:

(a) determine and have access to the compliance obligations related to its activities;

(b) determine how these compliance obligations apply to the organisation; and

(c) take these compliance obligations into account when establishing, implementing, maintaining and continually improving its forest management system.

The forest manager shall maintain documented information of its compliance obligations.

Note: Compliance obligations can result in risks and opportunities to the forest manager.

6.2 Management objectives

The forest manager shall establish management objectives at relevant functions and levels, consistent with the sustainability requirements identified in Section 11, associated compliance obligations, and other risks and opportunities.

The management objectives shall be:

(a) consistent with the sustainable forest management policy;

(b) measurable (if practicable);

(c) monitored;

(d) communicated; and

(e) updated as appropriate.

6.2.1 Planning actions to achieve management objectives

When planning how to achieve its management objectives, the forest manager shall determine:

(a) what will be done;

(b) what resources will be required;

(c) who will be responsible;

(d) when it will be completed; and

(e) how the results will be evaluated, including indicators for monitoring progress towards achievement of its measurable management objectives (see Clause 9.1).

The forest manager shall consider how actions to achieve its management objectives can be integrated into the forest manager's business processes.

The forest manager shall maintain documented information on the management objectives and the actions to achieve them.

Section 7 Support

7.1 Resources

The forest manager shall determine and provide the resources needed for the establishment, implementation, maintenance and continual improvement of the forest management system.

7.2 Competence

As a precondition for management planning and practices, the forest manager shall:

(a) determine the necessary competence of person(s) doing work under its control in relation to its forest management activities and its ability to fulfil its compliance obligations, including where applicable nationally endorsed competencies and/or qualifications for conducting hazardous activities;

(b) ensure that these persons are competent on the basis of education, training or experience;

(c) determine training needs associated with its forest management system;

(d) where applicable, take actions to acquire and regularly update the necessary competence;

(e) identify opportunities to support employment and skills development of workers, including, but not limited to, nationally endorsed and or recognised competencies and qualifications where appropriate;

(f) implement identified opportunities for workers e.g. through provision of appropriate training and development actions;

(g) evaluate the effectiveness of the actions taken.

Note: Applicable actions can include, for example, the provision of training to, the mentoring of, or the reassignment of currently employed persons; or the hiring or contracting of competent persons.

The forest manager shall retain appropriate documented information as evidence of competence.

7.3 Awareness

The forest manager shall ensure that persons doing work relevant to sustainable forest management under the forest manager's control are aware of:

(a) the sustainable forest management policy;

(b) the requirements identified in Section 11 and related actual or potential sustainability impacts associated with their work;

(c) their contribution to the effectiveness of the forest management system; and

(d) the implications of not conforming with the forest management system requirements.

7.4 Stakeholder communication and engagement

7.4.1 General

The forest manager shall strive to build constructive relationships with stakeholders.

The forest manager shall establish, implement and maintain the process(es) needed for facilitating effective, culturally appropriate, meaningful and timely stakeholder engagement, including:

(a) on what it will communicate;

(b) when to engage;

(c) with whom to engage; and

(d) how to engage using culturally appropriate techniques.

When establishing its engagement process(es), the forest manager shall:

i. take into account the needs and expectations of stakeholders, its compliance obligations and sustainability requirements; and

ii. ensure that information communicated is consistent with information generated within the forest management system and is reliable.

The forest manager shall address relevant communications from stakeholders on its forest management system. This will include:

(a) considering and incorporating (as appropriate) stakeholder feedback into the forest management system; and

(b) having mechanisms for managing complaints and disputes in a timely manner, including processes for:

(i) receiving complaints or disputes;

(ii) investigating and reviewing;

(iii) taking corrective and remedial action where necessary; and

(iv) communicating outcomes.

The forest manager shall retain documented information as evidence of its stakeholder engagement.

7.4.2 Internal communication

The forest manager shall:

(a) internally communicate information relevant to the forest management system among the various levels and functions of the organisation, including changes to the forest management system, as appropriate; and

(b) ensure its engagement process(es) enable(s) persons doing work under the forest manager's control to contribute to continual improvement.

7.4.3 External communication

The forest manager shall externally communicate information relevant to the forest management system, as established by the forest manager's documented communication process(es), and as required by its compliance obligations.

The forest manager shall use reasonable efforts to identify and notify affected stakeholders prior to the commencement of any operations that are likely to directly impact them.

The forest manager shall make publicly available:

(a) the sustainable forest management policy (Clause 5.2);

(b) a public summary of forest management (Clause 7.4.4);

(c) defined forest area maps at a scale that enables a clear understanding of the location of the forest and its context;

(d) a copy of its current certification certificate; and

(e) the audit report summaries provided by the certification body corresponding to the current period of certification.

7.4.4 Public summary

The forest manager shall make available a public summary of its management that is appropriate to the system scope, scale and management intent of the defined forest area. The forest manager shall ensure that the public summary includes:

(a) an overview of the context of the organisation, its activities and the compliance framework in which the forest manager operates;

(b) a description of the defined forest area, including the forest management unit/s and vegetation types (as applicable) and access to maps at appropriate scale;

(c) an outline of the forest management objectives;

(d) a description of forest values and an overview of how they will be managed to both provide benefits and minimise harm;

(e) a rationale for silvicultural regimes;

(f) a description of operational planning and control processes;

(g) a description of the processes for monitoring condition and performance; and

(h) an outline of stakeholder engagement processes, including procedures for obtaining further information.

The forest manager shall:

i. periodically review and update the public summary; and

ii. ensure that stakeholder views are considered during the review.

Note 1: The public summary may exclude confidential or sensitive information.

Note 2: The public summary of management may be referred to as the forest management plan. However, the main intent of the summary is to provide stakeholders with information about the forest manager's system. It is acknowledged that a forest manager may have multiple plans for different purposes.

7.4.5 Chain of custody claims

For forest products that are sold or supplied as certified under this Standard, the forest manager shall provide to the receiver the information necessary to establish the certification claim as detailed below:

(a) customer identification;

(b) certificate holder's identification;

(c) description of products, including species and product type as applicable;

(d) quantity of each product;

(e) date or period of delivery;

(f) the formal claim on the material (see Note); and

(g) the certified supplier's certificate identifier.

Note: The claim may be provided in the following forms '100% ANZFS CERTIFIED', '100% PEFC CERTIFIED', '100% ANZFS/PEFC CERTIFIED', '100% ANZFS', '100% PEFC', '100% RW CERTIFIED', '100%RW', '100% RW/PEFC CERTIFIED' or '100% RW/PEFC'.

The forest manager shall only make claims on materials sourced from within the defined forest area.

7.5 Documented information

7.5.1 General

The forest manager's forest management system shall include documented information:

(a) required by this Standard;

(b) necessary for the effectiveness of the forest management system; and

(c) necessary for demonstrating conformance with the requirements of this Standard.

Note: The extent of documented information for the forest management system can differ from one forest manager to another due to:

(i) the scale of the forest manager and its type of activities, processes, products and services;
(ii) the need to demonstrate fulfilment of its compliance obligations;
(iii) the complexity of processes and its interactions; and
(iv) the competence of persons doing work under the forest manager's control.

7.5.2 Creating and updating

When creating and updating documented information, the forest manager shall ensure appropriate:

(a) identification and description (e.g. a title, date, author or reference number);

(b) format (e.g. language, software version, graphics) and media (e.g. paper, electronic); and

(c) review and approval for suitability and adequacy.

7.5.3 Control of documented information

The forest manager shall control documented information required by the forest management system and by this Standard to ensure:

(a) it is available and suitable for use, where and when it is needed; and

(b) it is adequately protected (e.g. from loss of confidentiality, improper use, or loss of integrity).

For the control of documented information, the forest manager shall address the following activities as applicable:

i. distribution, access, retrieval and use;

ii. storage and preservation, including preservation of legibility;

iii. control of changes (e.g. version control); and

iv. retention and disposition.

The forest manager shall identify, and control (as appropriate) documented information of external origin determined by the forest manager to be necessary for the planning and operation of the forest management system.

Section 8 Operation

8.1 Operational control

The forest manager shall implement and control activities needed to meet forest management system requirements and minimise adverse effects.

This shall include:

(a) identifying or mapping relevant sustainability requirements (see Section 11);

(b) establishing operating plans with performance standards;

(c) implementing, supervising and monitoring their activities; and

(d) reviewing if the activities conform with performance standards and documenting results.

Activities include, but are not limited to:

i. harvesting (including salvage);
ii. transporting;
iii. establishment;
iv. tending and fertiliser application;
v. fire management;
vi. control of invasive species, pests and diseases;
vii. infrastructure development and maintenance; and
viii. other general forest management activities.

The forest manager shall strive to coordinate its activities with other parties to manage potential cumulative catchment and landscape-scale impacts.

Note: This could include potential coordination of forest management activities, for example, burning, weed control and feral animal management. Catchment or landscape coordination activities could include: (a) active participation in planning processes led by catchment management authorities or similar natural resource management bodies, or (b) meetings with adjacent forest and land managers.

The forest manager shall ensure that outsourced activities are controlled or influenced to conform with the requirements of this Standard.

8.2 Emergency preparedness and response

The forest manager shall establish, implement and maintain the systems needed to prepare for and respond to potential emergency events that impact on people, property, environmental and cultural values.

The forest manager shall:

(a) periodically test the planned response actions, where practicable;

(b) periodically review and revise the systems and planned response actions, in particular after the occurrence of emergency situations or tests; and

(c) provide relevant information and training related to emergency preparedness and response, as appropriate, to relevant stakeholders, including persons working under its control.

The forest manager shall maintain documented information to the extent necessary to have confidence that the systems are implemented as planned.

Section 9 Performance evaluation

9.1 Monitoring and evaluation

9.1.1 General

The forest manager shall monitor, measure, analyse and evaluate its performance.

For the relevant requirements of the Standard, the forest manager shall determine:

(a) what needs to be monitored, its performance criteria, and appropriate indicators;

(b) the methods for monitoring, analysis and evaluation, as applicable, to ensure credible and valid results;

(c) when the monitoring shall be performed; and

(d) how the results from monitoring shall be analysed and evaluated.

The forest manager shall ensure that calibrated or verified monitoring and measuring equipment is used and maintained, as appropriate.

The forest manager shall communicate relevant performance information both internally and externally, as identified in its communication process(es) and as required by its compliance obligations.

The forest manager shall retain appropriate documented information as evidence of the monitoring, measurement, analysis and evaluation results.

The forest manager shall make available to interested parties the monitoring methodology and results of monitoring, (excluding confidential information), upon reasonable request.

9.1.2 Evaluation of compliance

The forest manager shall establish, implement and maintain the process(es) needed to evaluate fulfilment of its compliance obligations.

The forest manager shall:
a) determine the frequency that compliance will be evaluated;
b) evaluate compliance and take action if needed;
c) maintain knowledge and understanding of its compliance status.

The forest manager shall retain documented information as evidence of the compliance evaluation result(s).

9.2 Internal audit

The forest manager shall conduct internal audits at planned intervals to provide information on whether the forest management system and operational activities:

(a) conform to:

i. the forest manager's own requirements for its forest management system;

ii. the requirements of this Standard.

(b) are implemented and maintained effectively.

When establishing the internal audit program, the forest manager shall take into consideration the importance of the processes concerned and the results of previous audits.

The forest manager shall:

i. define the audit criteria and scope for each audit;

ii. ensure the objectivity and impartiality of the audit process; and

iii. ensure that the results of the audits are reported to relevant management.

The forest manager shall retain documented information as evidence of the implementation of the audit program and the audit results.

9.3 Management review

Senior management shall review the forest manager's forest management system at least annually to ensure its continuing suitability, adequacy and effectiveness.

Management review shall include consideration of:

(a) the status of actions from previous management reviews;

(b) changes in:

i. external and internal issues that are relevant to the forest management system.;

ii. the needs and expectations of stakeholders, including compliance obligations.

(c) the extent to which management objectives have been achieved;

(d) information on the forest manager's performance, including trends in:

i. nonconformities and corrective actions;

ii. monitoring and measurement results;

iii. fulfilment of its compliance obligations; and

iv. audit results.

(e) adequacy of resources;

(f) trends in communication(s) from stakeholders, including complaints;

(g) results of research, and

(h) opportunities for continual improvement.

The outputs of the management review shall include:

i. conclusions on the continuing suitability, adequacy and effectiveness of the forest management system;

ii. decisions related to continual improvement opportunities;

iii. decisions related to any need for changes to the forest management system, including resources; and

iv. actions, if needed, when management objectives have not been achieved.

The forest manager shall retain documented information as evidence of the results of management reviews.

Note: Review of management system elements is intended to take place at least annually in cases where an annual review provides useful information and feedback. For other longer-term activities, the forest manager may consider establishing a time-scale appropriate review frequency.

Section 10 Improvement

10.1 General

The forest manager shall determine opportunities for improvement (see Clause 9.1, Clause 9.2 and Clause 9.3) and implement necessary actions to achieve the intended outcomes of its forest management system.

10.2 Nonconformity and corrective action

When a nonconformity occurs, the forest manager shall:

(a) react to the nonconformity and, as applicable:

i. take action to control and correct it; and

ii. deal with the consequences, including mitigating adverse impacts.

(b) evaluate the need for action to eliminate the causes of the nonconformity, in order that it does not recur or occur elsewhere, by:

i. reviewing the nonconformity;

ii. determining the causes of the nonconformity; and

iii. determining if similar nonconformities exist, or could potentially occur.

(c) implement any action needed;

(d) review the effectiveness of any corrective action taken; and

(e) make changes to the forest management system, if necessary.

Corrective actions shall be appropriate to the significance of the effects of the nonconformities encountered.

The forest manager shall retain documented information as evidence of:

i. the nature of the nonconformities and any subsequent actions taken; and

ii. the results of any corrective action.

The forest manager shall notify the certification body in the event of any nonconformity that may bring the Standard into disrepute.

10.3 Continual improvement

The forest manager shall continually improve the suitability, adequacy and effectiveness of the forest management system to enhance performance.

Section 11 Sustainability criteria

11.1 Maintain forests and carbon

Sustainability Objective 1: Maintain or appropriately enhance forest resources and their contribution to the global carbon cycle.

11.1.1 Maintain carbon stocks

The forest manager shall manage the DFA to maintain or enhance its capacity to store and sequester carbon in the medium and long-term.

The forest manager shall have a scientifically justified estimate of the current and future carbon storage on the DFA.

Note 1: Small-scale forest growers or those managing trees outside forests (in agriculture or urban areas) are often not able to maintain carbon stocks in the short term because they do not regularly harvest and regrow trees. These managers should demonstrate their intention to maintain tree cover and carbon stocks across their managed area over the long term. They can be allowed flexibility in the location of trees across their managed area.

Note 2: Dispensation can be allowed for reduced carbon stocks associated with clearing woody weeds and undesired tree species, such as camphor laurel (*Cinnamomum camphora*), and disastrous events in the defined forest area. In these situations, the manager should generally have a plan to maintain overall tree cover and carbon stocks through time.

Note 3: Where the DFA is altered, the estimated carbon storage will vary accordingly.

11.1.2 Climate positive practices

The forest manager shall take action to minimise anthropogenic greenhouse gas emissions.

The forest manager shall consider the impacts of climate change on the forests and forest management practices.

11.1.3 Conversion of natural ecosystems

The forest manager shall demonstrate that the defined forest area does not include areas converted from native vegetation to plantations after 31 December 2006, (excluding where legal approvals were obtained prior to that date); unless in justified circumstances where the conversion:

(a) was in compliance with national and regional policy and legislation agreements and directives applicable for land use and forest management and is a result of national or regional land-use planning governed by a governmental or other official authority; and

(b) was established based on a decision-making basis where affected stakeholders have opportunities to contribute to the decision making on conversion through transparent and participatory consultation processes; and

(c) did not adversely impact significant biodiversity values (SBVs), culturally and socially significant areas, other protected areas or areas of native vegetation that are part of legally recognised offsets; and

(d) entailed a small proportion (no greater than 5%) of ecosystem type within the certified area; and

(e) did not destroy areas of significantly high carbon stock; and

(f) made a contribution to conservation, economic and social benefits.

Note: The development of infrastructure required for forest management is not considered conversion.

11.1.4 Conversion of degraded native vegetation to plantation

The forest manager shall demonstrate that where conversion of degraded native vegetation to plantations is being considered, it shall add economic, ecological, social and/or cultural value.

Preconditions of adding such value are circumstances where the conversion:

(a) is in compliance with national and regional policy and legislation applicable for land use and forest management and is a result of national or regional land-use planning governed by a governmental or other official authority;

(b) is established based on a decision-making basis where affected stakeholders have opportunities to contribute to the decision making on conversion through transparent and participatory consultation processes;

(c) has a positive impact on long-term carbon sequestration capacity of forest vegetation;

(d) does not have adverse impacts on SBVs, culturally and socially significant areas, or other protected areas;

(e) safeguards protective functions of forests for society and other regulating or supporting ecosystem services;

(f) safeguards socio-economic functions of forests, including the recreational function and aesthetic values of forests and other cultural services;

(g) relates to land where degradation is not a consequence of management practices by the forest manager; and

(h) the area is neither recovered nor in the process of recovery.

11.1.5 Reforestation

The forest manager shall reforest after timber harvesting or other disturbances to ensure the quantity and quality of the forest resources. Where areas are not reforested, the forest manager shall justify and demonstrate the decision is consistent with their long-term commitment to sustainable forest management.

Note: Where the responsibility or choice to reforest rests with another legal entity, the forest manager is required to comply with all other aspects of this Standard however is not able to bind these future entities. See also clause 4.3.

For forests areas that are either:

(a) subject to a forestry right, harvested, and the area and/or forestry right then transferred to another entity, or

(b) reverted to former land uses.

the forest manager shall ensure that when the areas are to be removed from the defined forest area they are handed over to the new entity with all relevant information on the cultural, economic, environmental and social values of the areas.

11.2 Forest ecosystem health

Sustainability Objective 2: The health of forest ecosystems shall be maintained or enhanced and degraded native vegetation ecosystems shall be rehabilitated wherever and as far as economically feasible, by making best use of natural structures and processes and using preventive biological measures.

11.2.1 Identify and manage forest ecosystem health

The forest manager shall:

(a) identify and assess potential damage agents and threatening processes that could impact forest ecosystem health. This shall include consideration of climate change impacts;

Note: See Clause 11.1.2.

(b) implement practices to support the maintenance of forest ecosystem health;

(c) ensure that operations are conducted in a way that does not cause lasting damage to ecosystems; and

(d) monitor forest health and take action to control damage agents (or eradicate), where practicable and feasible.

11.2.2 Invasive and pest species

The forest manager shall identify invasive species and manage, control or eradicate them within the defined forest area.

The forest manager shall constrain the spread of invasive species and plantation species from the defined forest area into adjacent areas.

The forest manager shall contribute to the management of pest species' impact on SBVs.

11.2.3 Integrated pest management

The forest manager shall use integrated pest management to minimise the use of pesticides.

Pesticides should only be used in conjunction with other methods, or where other methods are ineffective.

11.2.4 Pesticides

The forest manager shall have documented risk assessments for the pesticides it uses and implement preventative measures to minimise adverse social and environmental impacts.

The forest manager shall not use pesticides such as chlorinated hydrocarbons whose derivatives remain biologically active and accumulate in the food chain beyond their intended use, and any pesticides banned by international agreement.

The forest manager shall not use World Health Organization (WHO) Class 1A and 1B pesticides, except where no other viable alternative is available, the pesticide is legally approved for use, listed in Appendix D, and the additional conditions in Appendix D have been met.

The forest manager shall not use highly hazardous pesticides except where no other viable alternative is available, the pesticide is legally approved for use and the forest manager is able to demonstrate action to mitigate risks.

Note 1: 'Pesticides banned by international agreements' are defined in the Stockholm Convention on Persistent Organic Pollutants and further guidance provided in Annexe III of the Rotterdam Convention.

Note 2: Actions to mitigate risks may include:

I. planning the timing and mode of application to eliminate adverse impacts;

II. contributing to or participating in research for viable alternatives;

III. specific monitoring of impacts on adjacent waterbodies, human health, non-target organisms or other unintended consequences; and

IV. notifying neighbours and other directly impacted stakeholders prior to operations.

The forest manager shall minimise the use of pesticides and any adverse impacts arising from their use.

Pesticide use shall be in accordance with the instructions given by the producer and/or regulators and be implemented with the appropriate equipment by trained personnel.

All use of pesticides shall be documented.

11.2.5 Fertiliser

(a) The forest manager shall manage soil nutrition appropriately to minimise fertiliser use.

(b) Where fertilisers are used, the forest manager shall justify their use and minimise any adverse impacts.

(c) Fertiliser use shall be in accordance with the instructions given by the producer and be applied with the appropriate equipment by trained personnel.

(d) The forest manager shall maintain documented information in relation to all fertiliser use.

11.2.6 Planned fire

The forest manager shall determine the appropriate uses of planned fire, considering:

(a) silvicultural requirements;

(b) human life and asset protection from wildfire;

(c) habitat or ecosystem requirements; and

(d) recognised practices of Indigenous peoples.

Where planned fire is appropriate, the forest manager shall:

i. determine the appropriate fire regimes (frequency, intensity, timing and spatial distribution for the forest types) taking account of the views of appropriate stakeholders e.g. traditional custodians, scientific experts, regulatory authorities; and

ii. apply the fire regimes to meet management objectives, while minimising adverse impacts, including smoke effects.

Where planned fire is used for training personnel or the management of slash, the forest manager shall undertake an evaluation and risk assessment process and implement measures to ensure the extent of the fire is contained to the target area and manage on-site and off-site impacts.

Note: Inappropriate fire regimes include fire at too infrequent or too frequent intervals, and severe bushfire/forest fire/wildfire. Vast areas of continuous burnt land or unburnt land may be deleterious to biodiversity in the landscape and to forest ecosystem health.

11.2.7 Impacts of damage agents

The forest manager shall plan and implement measures to prevent or manage the extent and impact of damage agents.

11.2.8 Salvage operations

The forest manager may undertake salvage operations to recover forest products affected by damage agents. In such circumstances the forest manager shall plan and implement measures to minimise adverse environmental, social and economic impacts. In circumstances where recovery of forest products occur:

(a) the forest manager shall exclude all reserve areas within the defined forest area from salvage operations except where required for safety, fire management, rehabilitation, or other justified reasons. Areas subject to these exceptional circumstances shall have additional stringent conditions to recognise the values in the reserves;

(b) the forest manager shall ensure that the planning and implementation of salvage operations is carried out in a manner that maintains remaining significant biodiversity values;

(c) in native forest, the forest manager shall, where opportunities exist, retain biological legacies and stand structural elements on affected areas, including variations in the intensity of salvage logging, retaining a range of growth stages to maintain biodiversity values within the affected area, and minimising the level of physical disturbance on regenerating areas;

(d) the forest manager shall ensure that salvage operations are carried out consistent with all relevant requirements of the Standard, including requirements of Clause 11.5.7 for regeneration, growth and species composition.

Note: See also Clause 8.2.

11.2.9 Rehabilitate degraded native vegetation

The forest manager shall identify sites within the defined forest area that are degraded and facilitate a prioritised economically feasible program for rehabilitation.

Rehabilitation activities should be guided by best available information and advice from relevant experts.

Note 1: The forest manager should demonstrate an awareness of existing and potential adverse impacts of environmental factors on natural ecosystems within the defined forest areas, including potential impacts of climate change on local conditions and extreme events.

Note 2: Restoration activities should be guided by best available information and advice from relevant experts.

11.2.10 Unauthorised and illegal activities

The forest manager shall address unauthorised or illegal activities, including notifying the relevant authorities of such activities.

11.2.11 Waste management

The forest manager shall ensure that hydrocarbons and other non-biodegradable waste and litter from forest management activities shall be cleaned up, collected and stored in designated areas and removed in an environmentally responsible manner.

Note: The risk of harmful impacts of spills and waste from the use of non-biodegradable hydraulic carbons can be minimised by the use of biodegradable hydraulic fluids and oils.

11.3 Biodiversity

Sustainability Objective 3: The biological diversity in forest ecosystems shall be maintained, conserved and appropriately enhanced.

11.3.1 Identification of significant biodiversity values at clear risk of adverse impacts

The forest manager shall identify significant biodiversity values (SBVs) that are within and/or ecologically connected to the defined forest area.

Note: Regulatory frameworks, recognised databases, published scientific information, expert knowledge and current research, complemented as needed by inventory and mapping of forest resources, field assessments and other relevant forest planning instruments may be used in the identification of SBVs. Identification of SBVs in the vicinity of the defined forest area may involve a desktop assessment of recognised databases.

SBVs at clear risk of adverse impacts from forestry management practices within, and within the vicinity of, the defined forest area shall be determined through a documented risk assessment process involving scientific experts (e.g. ecologists, species specialists, foresters). The clear risk of both short-term and long-term impacts will be determined and considered.

Note 1: Scientific research applicable to the forest ecosystem published in peer-reviewed journals, should be taken into account in the assessment of clear risk to SBVs.

Note 2: The forest manager should consider any other indigenous species, communities or habitats (not covered by SBVs) that may be found through new information to be at risk.

11.3.2 Actions to maintain or enhance significant biodiversity values

The forest manager shall develop and implement effective strategies to maintain or enhance SBVs, including the control of potential adverse impacts. This shall involve the application of the precautionary approach.

Note: Strategies may include protection areas, set asides, connectivity maintenance or other spatial or temporal measures as appropriate. The measures shall be consistent with actions specified in relevant recovery, action or threat abatement plans; codes of practice; or recognised interim guidelines and take account of known information and relevant scientific advice.

The forest manager shall develop and implement a plan where viable but degraded SBVs remain, to maintain and enhance them.

The forest manager shall map areas of SBVs within and in the vicinity of the defined forest area that are identified for protection or conservation through active management.

The forest manager shall minimise risks posed by activities to areas managed for biodiversity and/or retained habitat features, and other protected areas, conservation reserves, or areas of native vegetation that are part of a recognised offset.

11.3.3 Maintain native vegetation types and structure

The forest manager shall maintain or enhance genetic diversity, vegetation types, stand structural elements and growth stages of native vegetation.

11.3.4 Landscape scale diversity

The forest manager shall maintain habitat diversity at a landscape scale by

(a) contributing to the maintenance, improvement and restoration of ecological connectivity;

(b) maintaining or enhancing remnants.

Note 1: Such a network may include waterbody reserves and links up slopes and across ridges to connect with waterbodies in adjoining catchments. Strips and remnant patches should connect any large patches of forest which are not to be harvested, including reserves and other protected areas.

Note 2: The forest manager may decide on the configuration (width and frequency) of retained/restored areas appropriate to the local conditions using best available information and advice from relevant experts.

11.3.5 Maintain habitat diversity within the harvest unit

With due regard to safety, the forest manager shall maintain biodiversity values in native forest by retaining and maintaining an appropriate distribution of potential habitat such as standing and fallen dead wood, remnants, recruitment and hollow-bearing native trees.

Wherever necessary, the forest manager shall restore habitat where biological diversity has been damaged by the forest operation.

Note: Maintenance may involve retention of habitat features around the edges of harvest units where regeneration and/or safety is compromised.

11.3.6 Infrastructure

The forest manager shall construct and maintain infrastructure (including waterbody crossings) with the aim of minimising adverse biodiversity impacts. This shall include (but not be limited to) consideration of:

(a) SBVs;

(b) migration patterns of key species; and

(c) aquatic and riparian zone habitats.

11.3.7 Monitor biodiversity

The forest manager shall monitor biodiversity priorities, using a scientifically based monitoring methodology developed in consultation with relevant experts and stakeholders, to determine if values are being maintained or enhanced within the defined forest area. Biodiversity priorities for monitoring will be clearly described and quantified, and be drawn from general biodiversity, structural elements and/or SBVs.

The forest manager shall document biodiversity monitoring objectives and methods. The monitoring results will be used to evaluate and improve the effectiveness of the biodiversity management.

Note: The results of biodiversity monitoring should not be regarded as confidential (See 9.1.1) except where there is risk of causing harm.

11.3.8 Utilisation of threatened species

The forest manager shall not utilise threatened species for commercial purposes unless permitted under national or state legislation, or the CITES Convention.

11.4 Soil and water resources

Sustainability Objective 4: The protective functions of forests, notably soil and water, shall be maintained or enhanced.

11.4.1 Identify soil and water values

The forest manager shall identify and assess the soil and water values that can be affected by forest management.

The forest manager shall identify and map areas with recognised protective soil and water functions for society (e.g. domestic drinking water catchments).

11.4.2 Protect soil properties

The forest manager shall protect and maintain the physical, chemical and biological soil properties and restore those properties, where reasonably practicable.

The forest manager shall:

(a) minimise the extent of soil disturbance;

(b) take special care to minimise erosion, particularly on sensitive soils and erosion-prone areas, as well as in areas where operations might lead to excessive soil erosion;

(c) promptly rehabilitate temporary tracks and product storage areas by ensuring drainage and re-vegetation where appropriate, and

(d) where necessary, minimise the pressure of animal populations in sensitive areas.

11.4.3 Maintain water values

The forest manager shall protect and maintain water quality (physical, chemical and biological) by:

(a) minimising movement of soil and debris from forest management activities into waterbodies;

(b) minimising movement of pesticides and fertilisers into waterbodies and surrounding areas;

(c) taking action to avoid adverse impacts of hydrocarbons on water quality;

(d) implementing, maintaining and/or restoring protective waterbody management zones (of legally mandated widths or appropriate science-based widths) on drainage lines, and other natural waterbodies at risk of adverse impact from forest management activities;

(e) taking action to improve water quality where it has been significantly degraded, in consultation with other catchment users where necessary.

(f) minimising adverse impacts on hydrological flows (surface water and groundwater recharge); special care shall be given to operations in areas with water protection functions; and

(g) ensuring its impacts on hydrological flows are in accordance with codes of practice and/or regulated catchment goals.

11.4.4 Infrastructure

The forest manager shall construct and maintain infrastructure (including waterbody crossings) with the aim of minimising adverse soil and water impacts. This shall include (but not be limited to) consideration of:

(a) bare soil exposure;

(b) introduction of soil and debris into waterbodies; and

(c) effective operation of drainage structures.

11.5 Forest productive capacity

Sustainability Objective 5: Forest management shall maintain the productive capacity of forests.

11.5.1 Identify forest products

The forest manager shall identify the range of existing wood and non-wood forest products provided by the defined forest area.

11.5.2 Harvest rate

The forest manager shall determine the harvest rate for forest products commensurate with the long-term productive capacity of the forest. The harvest rate shall be justified and based on inventory and growth and yield estimates, considering the potential cultural, economic, environmental and social impacts.

The forest manager shall ensure that the harvesting levels do not exceed the productive capacity in the long term with the understanding that salvage operations may require exceeding the productive capacity in the short term.

Note: Salvage operations may involve temporary harvesting rates above the calculated productive capacity and necessitate a subsequent review.

11.5.3 Manage non-wood products

The forest manager shall ensure that commercial use of biological non-wood forest products is consistent with regulatory requirements and does not impact long-term sustainability.

11.5.4 Damage to growing stock

The forest manager shall minimise damage to growing stock during forest operations.

11.5.5 Infrastructure

The forest manager shall construct and maintain infrastructure necessary for forest management and delivery of goods and services.

Note: Refer to Clause 11.3.6 and Clause 11.4.4.

11.5.6 Species selection

The forest manager shall select and use species and genotypes that are suited to site and proposed end uses.

The forest manager shall ensure that any potential adverse impacts (including undesirable hybridisation) of the deployment of selected non-endemic species have been scientifically evaluated and can be managed.

The forest manager shall regenerate native vegetation with species and genotypes that are native to the area, or from an equivalent locality, as far as reasonably practicable, to maintain local gene pools, species mixes, quantity and quality of forest resources.

The forest manager shall consider climate change, disease insect, pest resistance and other threats in selecting species and genotypes.

The forest manager shall not use genetically modified trees.

11.5.7 Silviculture

The forest manager shall use silvicultural systems and stocking rates, appropriate for the forest type, site conditions and management objectives.

The forest manager shall implement operations in a timely manner to effectively establish or regenerate forests, promote growth and maintain appropriate species composition.

In situations where new silvicultural systems are being developed, the forest manager shall verify the effectiveness of the new silvicultural systems.

The forest manager shall take measures to control the pressure of pest species on forest establishment, regeneration and health.

11.6 Cultural values

Sustainability Objective 6: Forest management shall protect and maintain, for Indigenous and non-Indigenous peoples, their natural, cultural, social, recreational, religious and spiritual, and heritage values and rights.

11.6.1 Heritage values

The forest manager shall identify, protect and maintain cultural, religious, spiritual and social heritage places and values.

The forest manager shall regularly consult with appropriate bodies to:

(a) identify and record the significant cultural places and values; and

(b) protect and maintain these cultural places and values in a way that takes due regard of their significance.

11.6.2 Indigenous peoples' rights, responsibilities and values

The forest manager shall recognise rights, responsibilities and values of Indigenous people based on their recognised connection and ownership, where applicable, to the forests and land, including but not limited to the established framework of legal, customary and traditional rights such as outlined in ILO 169, the Treaty of Waitangi and the UN Declaration on the Rights of Indigenous Peoples. These rights shall not be infringed upon without free prior and informed consent.

The forest manager shall identify and respect the rights, responsibilities and values of Indigenous peoples. This shall include:

(a) providing for Indigenous peoples' input into decision making. In New Zealand, this shall include the rights of tangata whenua in decision making to ensure continued protection of those values;

(b) acknowledging and applying Indigenous peoples' knowledge of sustainable development and management of forests with informed community consent;

(c) applying practices and protocols that are consistent with Indigenous peoples' cultural and spiritual values that support and endorse sustainable development and management of forests;

(d) where appropriate, communicating to the wider community Indigenous peoples' rights, interests and knowledge;

(e) supporting Indigenous peoples' economic and social aspirations in sharing benefits from the management of forests; and

(f) respecting Indigenous peoples' cultural and traditional customs.

11.6.3 Indigenous cultural values

The forest manager shall identify, record and protect Indigenous peoples' cultural, religious, spiritual and social heritage places and values, respecting requirements for confidentiality and intellectual property.

The forest manager shall consult with the relevant Indigenous peoples or their representative bodies to:

(a) identify and record the significance of Indigenous peoples' cultural places and values;

(b) protect these cultural places and values, wāhi taonga, wāhi tapu and treasures of national heritage;

(c) identify areas fundamental to meeting the health and subsistence needs of Indigenous peoples and communities, and

(d) manage these areas in a way that takes due regard of their significance.

11.6.4 Legal and traditional uses

The forest manager shall allow existing legal and traditional uses in the forest to continue.

The forest manager shall use stakeholder engagement mechanisms to negotiate with affected traditional land use parties to address any uses that might be inconsistent with forest management objectives or the requirements of this Standard.

11.6.5 Traditional knowledge and management practices

The forest manager shall identify and apply traditional knowledge, experience, innovations and practices, where appropriate.

Where traditional knowledge is used free prior and informed consent is obtained from the knowledge custodian and the benefits of application are equitably shared.

Note: Traditional knowledge can include the knowledge of non-government organisations, local communities and Indigenous peoples.

11.7 Social and economic benefits

Sustainability Objective 7: Forest management shall maintain and enhance long-term social and economic benefits.

11.7.1 Human rights and needs

The forest manager shall respect human rights as defined by the Universal Declaration on Human Rights in conducting its activities.

11.7.2 Health and safety

Forest managers shall foster a safe working environment by developing systems which ensure that work is carried out in a safe and healthy manner and ensuring health and safety management conforms to relevant laws and codes of practice.

> Note: The system should accord with The ILO Guidelines on occupational safety and health management systems: ILO-OSH 2001

The forest manager shall:

(a) identify hazards and determine risks;

(b) apply reasonable measures to protect workers from work-related risks;

(c) provide guidance and training in safe working practices;

(d) inform workers about the risks involved with their work and about preventive measures;

(e) cooperate and consult with workers and their representative organisations where they exist, on workplace health and safety;

(f) comply with relevant workplace health and safety legislation and regulations;

(g) facilitate improvements in workplace health and safety and

(h) only adopt working conditions that do not endanger health or safety.

The forest manager shall provide opportunities for workers and their representative organisations, where they exist to cooperate and actively participate in the development of workplace health and safety systems and decision making.

11.7.3 Workers' rights

Forest managers shall ensure that its practices and those of its contractors and sub-contractors comply with the fundamental ILO conventions.

The forest manager shall recognise, respect and support the rights of workers to:

(a) join a union or organisation of workers;

(b) participate in collective bargaining amongst the industrial parties which is consistent with this Standard and the fundamental ILO conventions; and

(c) associate freely.

Where it engages in collective bargaining, ensure bargaining is consistent with the fundamental ILO conventions by ensuring that it:

(a) takes place with representative workers' organisations where they exist;

(b) does not involve direct dealing;

(c) takes place in good faith; and

(d) involves the forest manager's best efforts to reach agreement.

Representatives of organisations of workers shall be provided with appropriate (and facilitated upon reasonable request) access to workers in the workplace and have the use of such facilities in the workplace as are necessary for the proper exercise of their functions as workers' representatives.

11.7.4 Equal employment

The forest manager shall:

(a) commit to, promote and ensure that all workers are afforded equal treatment, non-discrimination and freedom from workplace harassment;

(b) use qualifications, skill, experience and merit as the basis for recruitment and advancement; and

(c) give special consideration to opportunities for training and employment of local people, including Indigenous peoples.

11.7.5 School-aged workers

School-aged workers shall only be engaged where such engagement:

(a) complies with legal requirements;

(b) formally contributes to or does not affect their education; and

(c) is not harmful to their health or development.

11.7.6 Remuneration and conditions

The forest manager shall monitor, ensure, and demonstrate that:

(a) all workers are engaged freely and are duly compensated;

(b) it, and its contractors and subcontractors are in compliance with legal obligations creating minimum employee entitlements, including but not limited to those set out in national legislation and collective bargaining agreements;

(c) wages of workers shall meet or exceed at least legal minimum wage or, where applicable collective bargaining agreements or, a living wage where this is considered higher than the legal minimum wages;

(d) wages, salaries, superannuation and other entitlements and employment contracts are paid on time; and

(e) working hours and leave shall comply with state or national legislation, or applicable collective agreements.

Where workers or contractors are required to live away from home, the forest manager or its contractors shall ensure that accommodation is adequate and decent. Accommodation must not cost the worker more than a reasonable proportion of their income and must be consistent with equivalent commercial market rates. Workers shall enjoy their fundamental human rights and freedom of association. Workers' accommodation and related transport arrangements should not restrict workers' rights and freedoms.

> Note 1: Where unit rates are paid, an operation cost model can convert piece-rate productivity into an equivalent annual, daily or hourly rate of pay.
>
> Note 2: Accommodation standards should include sufficient minimum space per person, supply of safe water, adequate sewage and garbage disposal systems, heating, cooling, cleanliness and adequate sanitary conveniences, washing facilities, privacy, a separate bed for each worker, and separate gender accommodation.

11.7.7 Ethical behaviour

The forest manager shall demonstrate a commitment to ethical behaviour by:

(a) engaging suppliers of goods and services with fair contracts; and

(b) implementing anti-corruption measures.

11.7.8 Local procurement

Where cost, quality and capacity of non-local and local options are at least equivalent, the forest manager shall:

(a) use local goods and service providers, where available; and

(b) support and encourage establishment of local capacity where such goods and service providers are not available.

Note: In the application of these requirements, the forest manager should be mindful of International Trade Agreements to which Australia and New Zealand are parties.

11.7.9 Optimal use

The forest manager shall harvest forest products in a manner that optimises value recovery and minimises waste.

The forest manager shall segregate products appropriately in order to provide maximum value.

11.7.10 Local industry support and development

Subject to forest product supply constraints, the forest manager shall:

(a) engage proactively with local and regional forest products processors and consider their needs for supply;

(b) support and encourage the establishment of local processing and value-added activities where not currently available;

(c) develop metrics to demonstrate conformance with this requirement.

Note: Metrics may include the annualised percentage of forest products supplied locally.

11.7.11 Sound economic performance

The forest manager shall operate on sound economic principles, taking into account possibilities for new markets and economic activities in connection with all relevant goods and services of forests.

The forest manager shall identify opportunities that allow the forests within the defined forest area to play an environmental, economic, social and cultural role in rural and regional development; and give due regard to the role of forestry in local economies.

11.7.12 Public access

The forest manager should allow public recreational access provided it does not conflict with ownership and cultural rights, safety and the rights of others, the effects on forest resources and ecosystems, and other functions of the forest.

The forest manager shall use its established stakeholder engagement mechanisms to negotiate with affected parties to address any access issues that might be inconsistent with forest management objectives or the requirements of this Standard.

11.7.13 Community wellbeing

The forest manager shall contribute to the health and wellbeing of local communities.

Note: This could include contributing to local employment, community spirit, resilience, education and a liveable environment.

11.7.14 Research

The forest manager shall undertake, or support research activities and data collection needed for sustainable forest management.

Appendix A (informative)
Guidelines for the interpretation of requirements for trees outside forests (TOF) and farm forestry

A.1 Preamble

Trees outside forests (TOF) encompass a wide range of arrangements, such as agroforestry, farm forestry, avenue trees, trees planted within riparian zones, shelterbelts, windbreaks and urban trees (see Table A1 from FAO 2019). This includes 'native' and 'non-native', planted and naturally established trees and may include remnant (living and dead) native trees in agriculture landscapes. This section also applies to planted woodlots and smaller areas of trees. During the standard setting process, the typical TOF systems of national relevance were identified and the appropriate threshold between intensive and extensive discussed and agreed. These guidelines apply to trees managed intensively and extensively as indicated in PEFC ST:1003: 2018.

TOF and farm forest areas fulfil diverse cultural, economic, environmental and social functions. They are managed for a range of objectives, including timber, on-farm benefits (shade and shelter for stock or crops, erosion control, water quality, aesthetic benefits) or for cooling, shade, amenity or recreation or human health benefits in urban areas. These trees, in all settings, can provide biodiversity conservation or habitat benefits. To meet these different priorities, management of trees differs from that in other organisations where forest management is the primary activity. The 'defined forest area' will include land primarily used for agricultural crops, pasture or urban parks, roadways and built settlements. TOF and farm forest owners or managers may use different types of plans (farm plans or urban forest plans) to indicate their objectives for managing their trees.

Farm forest managers can be incentivised to retain and grow trees by selling forest products, to local or export markets. Sale of forest products from TOF and farm forestry is secondary to the primary business objectives of the owners and done infrequently. Capacity to market their timber can be enhanced if the owner can demonstrate their forest products are produced legally and that tree management meets the required standard for sustainable forest management.

Given the scale of their activities and frequency of timber removal, these managers may not need to fully document conformance with all aspects of the standard. This Appendix provides a guide to TOF and farm forest managers on the elements of the Standard on which they need to document conformance (see Clause 7.5.1). This can reduce the cost of demonstrating responsible management.

All requirements of this Standard referring to 'forest/s' are in principle applicable to trees outside forests and farm forestry. This Appendix provides guidance on how the requirements of the Standard may be applied at a scale relevant to TOF and farm forests. It also identifies those requirements that may not always be applicable in a TOF or farm forestry context, and where a TOF or farm forest manger may be justified in not applying a particular requirement of this Standard.

Notes are provided on requirements for small holders and guidance for assessing conformance. Users should consider scale, risk and intensity of tree management in relation to the broader landscape and the overall objectives of TOF and farm forestry. Because they are generally small-scale, owners or managers of TOF are likely to participate in the standard through a group scheme and the requirements for group certification will apply.

Table A1. Groupings of trees outside forests by predominant land use

Grouping	Examples
Trees on land predominantly under agricultural use	Agroforestry parklands Trees scattered in mixed cropping systems Trees on pasturelands Trees in hedges Tree crops in monoculture plantations Trees in home gardens Trees in agroforests in the humid tropics Trees in shifting-cultivation areas
Trees on land predominantly under urban use	Trees in large urban centres Trees in small urban centres Trees in peri-urban areas
Trees outside forests on land not predominantly under agricultural or urban use	Trees in small woods Trees in narrow linear formations

Table A2- Interpretation for trees outside forests (TOF) and farm forestry

Requirement of AS/NZS 4708	Documented conformance required for TOF and farm forestry
Clause 4.1 The forest manager shall determine external and internal issues that are relevant to its purpose and that affect its ability to achieve the intended outcomes of its forest management system.	Managers of TOF and farm forestry shall document relevant internal and external issues in growing and harvesting trees or other tree products, for example, on neighbours and the broader landscape environment.
Clause 4.2 The forest manager shall identify the needs and expectations of stakeholders.	See interpretations for Clause 7.4 in this table.
Clause 4.3 The forest manager shall determine the boundaries and applicability of forest management to establish its scope.	Managers of TOF and farm forestry shall document the geographical area subject to management and demonstrate ownership through legal title. Managers shall demonstrate ownership or management control of trees. Note: The manager is not responsible for activities beyond the point of sale of products.
Clause 4.4 Forest management	Managers of TOF and farm forests shall establish a

Requirement of AS/NZS 4708	Documented conformance required for TOF and farm forestry
system	management system, including monitoring and evaluation with an appropriate assessment of the social, environmental and economic impacts of TOF management practices, which forms a basis for a cycle of continual improvement.
Section 5 Leadership, policy, organisation roles and responsibilities	TOF and farm forest organisations shall demonstrate leadership and a focus on continual improvement of their management system through a commitment with respect to conformance with the principles of AS/NZS 4708 and other applicable requirements of the certification system. TOF and farm forest organisations shall ensure that the responsibilities and authorities for relevant roles are defined and assigned.
Section 6. Planning Clause 6.1 Compliance Clause 6.2 Management objectives Clause 7.1 Resources	Managers of TOF and farm forests shall have a plan stating the purpose of tree management and an assessment of the social, cultural, biodiversity, environmental values of these trees and expected benefits of their management, including future supply of products and expected revenues. Note: Plans may take the form of farm plans, urban forest plans, local government plans, or vegetation or conservation management plans. They should indicate: a. the purpose(s) of tree management b. compliance obligations, including relevant legislation c. cultural, economic, environmental and social values of the trees d. risks and expected benefits of tree management e. actions to achieve the purposes and benefits f. resources required to achieve objectives These plans should be consistent with broader regional vegetation or catchment plans. This plan shall be regularly updated (at least every 5 years).
Clause 7.2 Competence Clause 7.3 Awareness	Managers of TOF and farm forests should document that any person(s) doing work under their control are trained, qualified and competent to conduct this work and aware of the management objectives, relevant compliance obligations, and the requirements to conform with this standard. Managers of TOF and farm forests shall document and demonstrate current knowledge of science-based practices appropriate to their management objectives, for example, in agroforestry, agriculture, urban forestry, or biodiversity conservation.

Requirement of AS/NZS 4708	**Documented conformance required for TOF and farm forestry**
	Note: This could include active membership and participation in activities of relevant organisations in Australia and/or New Zealand or community groups and participation in field days, seminars, or training programs (e.g. Master Tree Grower Programs).
Clause 7.4 Stakeholder communication and engagement Clause 7.4.2 to Clause 7.4.4 are not applicable	Managers of TOF and farm forests shall document with respect to affected stakeholders: a. efforts made to maintain relationships with neighbours and others who may be impacted by the management of their trees b. communication and engagement with them about their tree management c. availability of their plans to such stakeholders d. any consideration of the relevant needs, expectations and interests such stakeholders may have in their management plan and activities.
Clause 7.4.5 Chain of Custody	Requirements of this clause apply.
Clause 7.5 Documented information.	Managers of TOF and farm forests shall maintain documented information that describes tree management activities (see below).
Section 8. Operation	Managers of TOF and farm forests shall document: a. control of their tree management activities by identifying or mapping relevant sustainability requirements (see below), having operating plans for relevant activities, implementing and monitoring activities and reviewing the outcomes. b. ways in which relevant sustainability requirements of this Standard have been applied to minimise damage to retained and remnant trees, soil and water, and maintain capacity to provide wood and non-wood products and services. c. consultation with other parties with the intention of coordinating tree management activities to manage potential cumulative catchment and landscape-scale impacts. Note: Management activities include: • harvesting (including salvage) • product transporting • tree establishment

Requirement of AS/NZS 4708	Documented conformance required for TOF and farm forestry
	• tree tending and fertilising • fire management • control of invasive species, pests and diseases • road or track construction and maintenance • other general forestry management activities.
Clause 8.2 Emergency preparedness and response	Managers of TOF and farm forests shall document their preparation for, and responses to, potential emergency events that impact on people, property, environmental and cultural values.
Section 9 Performance evaluation and Section 10 Improvement	Managers of TOF and farm forests shall: (i) document monitoring of conformance with the sustainability requirements identified in Section 11 to ensure health, vitality and sustainability of trees conformance with the associated compliance obligations, and other risks and opportunities (ii) document changes in plans and practices following review of monitoring information. Note: This could include personal observations of wildlife, tree health and other factors or observations from others with interest and relevant expertise.
Section 11. Sustainability criteria	
11.1 Maintain forests and carbon 11.1.1 Maintain carbon stocks 11.1.2 Climate positive practices 11.1.3 Conversion of natural ecosystems 11.3 Conversion of degraded native vegetation to plantation 11.1.5 Reforestation	Managers of TOF and farm forests, in accordance with management objectives, document maintenance of or an increase in extent and/or diversity of trees within the defined forest area and their ecosystem services (including carbon sequestration) over the long-term. Note: Thinning of native forest may be acceptable to increase understorey, improve grazing capacity, improve tree health or habitat provided other values (carbon stock, biodiversity habitat, soil and water quality), are maintained across the defined area.

Requirement of AS/NZS 4708	Documented conformance required for TOF and farm forestry
11.2 Forest ecosystem health 11.2.1 Identify and manage forest ecosystem health 11.2.2 Invasive and pest species 11.2.3 Integrated pest management 11.2.4 Pesticides 11.2.5 Fertiliser 11.2.6 Planned fire 11.2.7 Impacts of damage agents 11.2.8 Salvage operations 11.2.9 Rehabilitate degraded native vegetation 11.2.10 Unauthorised and illegal activities 11.2.11 Waste management Sections 11.2.3, 11.2.4 and 11.2.5 on pest and fertiliser management apply	With due regard to TOF and farm forest management objectives managers shall demonstrate: a. maintenance, or where degraded, restoration of, the health and vitality of their trees b. efforts made to limit impacts from invasive and pest species, including the use of integrated pest management approaches c. that hydrocarbons and other non-biodegradable waste and litter are cleaned up, collected, stored in designated areas and removed in an environmentally responsible manner d. the protective functions and ecosystem services provided by trees have been maintained and/or enhanced.
11.3 Biodiversity values 11.3.1 Identification of significant biodiversity values 11.3.2 Maintain or enhance significant biodiversity values 11.3.3 Maintain vegetation types and structure 11.3.4 Landscape scale diversity 11.3.5 Maintain habitat diversity at stand scale -Remnants 11.3.6 infrastructure 11.3.7 Pest species 11.3.8 Monitor biodiversity 11.3.9 Utilisation of threatened species.	Managers of TOF and farm forests shall demonstrate that the relevant requirements in these sections have been met. In particular that: a. biodiversity values have been conserved and/or enhanced b. risks of degradation or damage to significant biodiversity values have been identified and specify how risks are managed c. native forest, TOF or farm forests have not been converted unless legal and justified through regulated arrangements that require offsets that result in no net loss of biodiversity values d. trees have been planted to contribute to ecological connectivity, where appropriate e. remnants with significant biodiversity values have been maintained and/or enhanced e.g. diversifying age structure and vegetation structure and community diversity f. trees planting in ecologically important non-forest ecosystems only occurs where it improves ecological values g. native forest with significant biodiversity values,

Requirement of AS/NZS 4708	Documented conformance required for TOF and farm forestry
	hollow resources or foraging habitats for rare or threatened species are not converted h. genetic, species and/or structural diversity to enhance the stability, vitality and resilience and functions of their trees are considered. Notes: Significant biodiversity values have been defined. On farms or in urban areas these could include remnant native (living and dead) trees, isolated paddock trees, natural vegetation and wetlands. . Biodiversity values can be assessed at a landscape level, recognising that the manager does not have control over actions across the landscape. Removal of dying or dead trees in urban areas or on farms will sometimes be required for human safety.
11.4 Soil and water values 11.4.1 Identify soil and water values 11.4.2 Protect soil properties 11.4.3 Maintain water values 11.4.4 Infrastructure	Managers of TOF and farm forests shall document: a. an assessment of soil and water values that can be affected by forest management, in particular areas with recognised soil and water protection functions for society (e.g. domestic drinking water catchments) b. protection and maintenance of soil, including the use of soil conservation techniques c. minimisation the extent of soil disturbance d. minimisation of erosion particularly on sensitive soils and erosion-prone areas as well as in areas where operations might lead to excessive soil erosion e. rehabilitation of temporary tracks f. protection and maintenance of water quality (physical, chemical or biological) by minimising movement of soil and debris, pesticides and fertilisers into waterbodies and surrounding areas g. implementation of waterbody management zones (of appropriate science-based widths) to protect drainage lines, other waterbodies and ensure effective management of drainage structures h. cooperation with other managers in catchments to improve water quality where it has been significantly degraded i. minimisation of bare soil exposure

Requirement of AS/NZS 4708	Documented conformance required for TOF and farm forestry
11.5 Maintain forest productivity 11.5.1 Identify forest products 11.5.2 Annual allowable cut- wood products 11.5.3 Manage non-wood products 11.5.4 Damage to growing stock 11.5.5 Infrastructure 11.5.6 Species selection 11.5.7 Silviculture 11.5.8 Pest species	Managers of TOF and farm forests shall document how they are maintaining tree productivity and growth capacity, including: a. use of tree species and provenances that are suited to the management purpose and to current and future site conditions b. goals for production of timber and other products that are consistent with the productivity capacity of the site c. use of silvicultural practices that are appropriate to the species, age classes and scale of their trees d. minimisation damage to soils and nutrient losses during harvesting and site preparation e. the rapid replanting of harvested areas f. measures to control pest species.
11.6 Cultural values 11.6.1 Heritage Values 11.6.2 Indigenous peoples' rights, responsibilities and values 11.6.3 Indigenous cultural values 11.6.4 Legal and traditional uses 11.6.5 Traditional management practices	Managers of TOF and farm forests shall document: a. actions to identify, protect and maintain cultural, religious, spiritual and social heritage places and values b. the legal, customary and traditional rights and the rights, responsibilities and values of Indigenous peoples c. their acknowledgement of the use of Indigenous people's knowledge and the informed consent of those peoples, consistent with their cultural and spiritual values, respecting requirements for confidentiality and intellectual property d. appropriate benefit sharing from tree management and use of traditional knowledge e. allowance of existing legal and traditional uses and practices f. negotiation with affected traditional landowners to address any uses that might be inconsistent with tree management objectives.

Requirement of AS/NZS 4708	Documented conformance required for TOF and farm forestry
11.7 Social and economic benefits 11.7.1 Human rights and needs 11.7.2 Health and safety 11.7.3 Workers' rights 11.7.4 Equal employment 11.7.5 School-aged workers 11.7.6 Remuneration and conditions 11.7.7 Ethical behaviour 11.7.8 Local procurement 11.7.9 Optimal use 11.7.10 Local Industry support and development 11.7.11 Sound economic performance 11.7.12 Public access 11.7.13 Community wellbeing 11.7.14 Research	Managers of TOF and farm forests shall document: a. conformance with relevant health and safety laws b. equal treatment of workers, including, non-discrimination and freedom from workplace harassment c. fair pay at rates that meet or exceed accepted standards d. that accommodation provided to workers is adequate and decent and at rates consistent with equivalent commercial market rates e. that procurement of supplies locally and the offer of forest products to local processors f. that tree products are harvested in a manner that optimises recovery, minimises waste and maximises value g. contributions to the health and wellbeing of local communities h. provision of access for scientific research where this does not impact unduly on the forest operations.

A.2 Additional requirements for trees outside forests

The TOF or farm forest owner shall meet compliance obligations applicable to agriculture where these exist under regulatory frameworks.

Appendix B (normative)
Requirements for group forest management

B.1 Scope

This document defines requirements for regional, national or trans-Tasman forest certification systems, which include group forest management certification and allow the certification of a number of forest owners and/or managers under one certificate.

Group forest management certification requires establishing a specific management structure that incorporates the individual forest owners and/or managers. This entity represents the individual owners and/or managers in forest certification in order to ensure the correct implementation of the sustainable forest management standard and provide confidence in sampling-based certification activities.

Note: The requirements laid out in this appendix aim to follow PEFC's international benchmark for group forest certification PEFC ST 1002:2018 — Group Forest Management Requirements.

B.2 Context of the group organisation

B.2.1 Understanding the group organisation and its context

The group organisation shall determine a general framework that enables relevant external and internal issues of the group organisation to then be determined, such as:

(a) regional groups: groups of forest owners and/or managers defined by regional borders or geography;

(b) other groups; and/or

(c) whether there are any other specific circumstances that influence the implementation of the group management system.

B.2.2 Understanding the needs and expectations of affected stakeholders

The group organisation shall meet requirements of Clause 4.2 for the group management system.

B.2.3 Determining the scope of the group management system

Those requirements of the standard to be achieved collectively by the members of a group management system shall be determined and documented. An individual member's contribution to the achievement of the Group's collective obligation will vary and need not be documented other than as an individual member's obligation to contribute proportionality to the achievement of collective obligations over time.

Applicable obligations of the standard not documented as being achieved collectively, remain all members' individual obligation.

Note: The collective obligations of a group scheme should be achieved by requiring that group members remain in the group for at least the full duration of a forest rotation. Where group members are unable or unwilling to remain in the Group scheme for a full rotation cycle, the group is required to acquire and manage some equivalent area of forest for the remaining period of the departing member's rotation, thereby demonstrating a long-term commitment to sustainable forest management.

B.3 Group management system

All participants shall be subject to the monitoring and the internal audit program.

Note: See Clause 9.1 and Clause 9.2.

B.4 Leadership

B.4.4 Organisational roles, responsibilities, and authorities

B.4.4.1 Functions and responsibilities of the group entity

The group entity shall be functionally responsible for:

(a) implementing and maintaining an updated and effective management system covering all participants of the group;

(b) representing the group organisation in the certification process, including communications, certification application, contractual and other relationships with the certification body;

(c) establishing and maintaining updated written procedures for the management of the group organisation, including procedures for addressing disputes and grievances;

(d) establishing and maintaining updated written procedures for the acceptance of new participants of the group organisation. These acceptance procedures shall require at least the verification of the applicant's information about contact details, clear identification of their forest property and its/their size(s);

(e) establishing and maintaining updated written procedures for the suspension and exclusion of participants who do not correct/close nonconformities after prescribed notification of a requirement to do so. Group participants excluded from any certification group based on nonconformities cannot be certified within 12 months from the date of suspension/exclusion;

(f) maintaining documented information of:

i. the group entity and participants' conformity with the requirements of the sustainable forest management standard, and other applicable requirements of the forest certification system;

ii. all participants, including their contact details, identification of the geographical area and other required characteristics of the certified forest property;

iii. the certified area of productive forest, where less than the geographical area;

iv. the implementation of an internal monitoring program, its review and any preventive and/or corrective actions taken;

(g) establishing connections with all participants based on a binding written agreement which shall include the participants' commitment to comply with the sustainable forest management standard. The group entity shall have a written contract or other written agreement with all participants covering the right of the group entity to implement and

enforce any corrective or preventive measures, and to initiate the exclusion of any participant from the scope of certification in the event of nonconformity with the sustainable forest management standard;

Note: The requirements for 'participant' commitment' and 'written contract or other written agreement with all participants' may also be satisfied by the commitment of and written agreement of a pre-existing organisation or group or the member's participation, such as a forest owners'/managers' association, sustainable forest management program and submission to tax programming, where the organisation can demonstrate that it has a legal mandate to represent the participants and where its commitment and the terms and conditions of the contract are enforceable.

(h) providing all participants with an individualised and dated document confirming participation in the group forest certification;

(i) providing all participants with information and specific instructions for conformance with the group certification;

(j) addressing nonconformities reported from group members which were identified under other PEFC certifications than the particular group certification and to ensure implementation with all group members;

(k) operating an internal monitoring program that provides for the evaluation of the participants' conformity with the certification requirements;

(l) operating an annual internal audit program covering both group members and group entity;

(m) operating a management review of the group forest certification and acting on the results from the review;

(n) providing cooperation and assistance in responding effectively to all requests from the certification body, accreditation body, certification scheme owner for relevant data, documentation or other information; and

(o) allowing access to the forest area covered by the group organisation in connection with audits or reviews of the management system.

B.4.4.2 Functions and responsibilities of the participants

The group's participants shall be functionally and contractually responsible to comply with the general and any specific requirements of the group, which shall be made available in writing at the time of entry into the scheme.

B.4.5 Commitment and policy

The group entity shall contractually commit to the group collectively:

(a) for achieving the requirements of the sustainable forest management standard;

(b) to progressively improve the group management system;

(c) to continually improve the sustainable management of the land/forests certified on behalf of the participants; and

(d) to continually support the improvement of the sustainable management of the land/forests by the participants.

The commitment of the group entity shall be part of a documented group management policy and publicly available upon request.

Group participants shall provide a commitment:

(a) to follow the rules of the management system; and

(b) to implement the requirements of the sustainability standard in their operations in their area.

B.5 Planning

A group management plan shall meet all requirements of Section 6 and in addition include:

(a) any changes in the group management system planned by the group organisation; and

(b) considerations of requirements of the sustainable forest management standard that a group organisation decides to fulfil on the group level.

B.6 Support

Resources needed for the establishment, implementation, maintenance and continual improvement of the group management system shall be determined and provided.

Persons doing work in the group management system shall have the necessary competence.

B.7 Communications

Communication processes to raise the awareness of participants shall be in place concerning:

(a) the group management policy;

(b) the requirements of the sustainable forest management standard;

(c) their contribution to the effectiveness of the group management system and the sustainable forest management, including the benefits of improved group performance; and

(d) the implications of not conforming with the group management system requirements.

Communications, internal and external, relevant to the group management system shall be determined and include:

(a) what to communicate;

(b) when to communicate;

(c) whom to communicate with; and

(d) how to communicate.

The documented information relevant to the group management system and the conformance with the requirements of the sustainable forest management standard shall be:

(e) up-to-date;

(f) available and suitable for use, where and when it is needed; and

(g) adequately protected against loss of confidentiality, improper use or loss of integrity.

B.8 Operation

The group organisation shall plan, implement and control processes needed:

(a) to meet the requirements of the sustainable forest management standard and additional group requirements provided in this appendix; and

(b) to implement the planning and operational control in Clause 8.1.

This planning, implementing and controlling shall be done by:

(a) defining the necessary processes and establishing criteria for those;

(b) implementing control of the processes in accordance with the criteria; and

(c) retaining documented information to the extent necessary to have confidence that the processes have been carried out as planned.

B.9 Performance evaluation

B.9.6 Monitoring, measurement, analysis and evaluation

An ongoing internal monitoring program provides confidence in the conformity of the group organisation with the sustainable forest management standard. The program shall determine:

(a) what shall be monitored and measured;

(b) methods for monitoring, measurement, analysis and evaluation, as applicable, to ensure valid results;

(c) when monitored and measuring shall be performed;

(d) when their results shall be analysed and evaluated; and

(e) what documented information shall be available as evidence of the results.

The group entity shall evaluate the group management performance and the effectiveness of the group management system concerning the implementation of the sustainable forest management requirements.

B.9.7 Internal audit

B.9.7.1 Objectives

An annual internal audit program shall meet the requirements of Clause 9.2, plus provide information on whether the group management system:

(a) conforms to the group organisation's own requirements for its group management system; and

(b) ensures the implementation of the sustainable forest management standard on the participant level is effectively implemented and maintained.

The internal audit program shall cover the group entity and all group participants. The group entity shall be audited annually. The participants may be selected on a sample basis.

B.9.7.2 Organisation

An annual internal audit program shall meet the requirements of Clause 9.2, plus verify the competence of internal auditors (i.e. forest knowledge, standard knowledge).

B.9.8 Selection of participants in the annual internal audit program

B.9.8.1 General

This appendix establishes requirements for the selection of participants in the internal audit program, including procedures for:

(a) determination of the sample size;

(b) determination of sample categories;

(c) distribution of the sample to the categories; and

(d) selection of the participants.

B.9.8.2 Determination of the annual audit sample size

The sample size shall be calculated for the participants of the group organisation. It should be the square root of the number of participants rounded to the upper whole number:

$y = \sqrt{x}$

Where

x = number of participants

y = sample size

The size of the sample may be adapted by taking into account one or more of the following indicators in Table B.1.

For small groups with fewer than 10 members, the sampling calculation above does not apply. The sample size over the course of a three-year certification cycle shall ensure all members are audited at least once and all high-risk activities visited in the year of operation.

B.9.8.3 Determination of sample categories

Sample categories shall be established based on the results of using the sum of indicators in Table B.1 and the risk ranking of Table B.2.

Table B.1 Matrix for assessment of risk used for determination of sample categories for internal audit of group participants

Indicator for risk		Score if applicable
Significant biological diversity values (SBVs)	No SBVs at risk within, and in the vicinity of the forest.	1 [low]
	SBVs at risk within the vicinity of the forest.	3 [med]
	SBVs at risk in the forest.	9 [high]
Silviculture and operations likely	No uses of chemicals, fire or site preparation.	1 [low]
	Possible uses of chemicals or small, confined fire operations or site preparation.	2 [med]
	Necessary uses of chemicals or site preparation and/or fuel reduction burning is likely.	4 [high]
Size of management units (coupes)	Range always <20 ha.	1 [low]
	Range 20–60 ha.	2 [med]
	Some coupes >60 ha.	3 [high]
Soil and water values	Low-erodibility soils and no water bodies requiring buffers or crossing.	1 [low]
	Not highly erodible soils and/or few water bodies requiring buffers or road crossing.	2 [med]
	Highly erodible soils or karst or considerable water body buffers (in number or class of water bodies) or supplies domestic water.	9 [high]
Stakeholder, neighbour, community considerations	No residential neighbours or no recreation/other traditional use of forest or neighbour's property.	1 [low]
	No residential neighbours. Occasional recreation/other traditional use of forest or neighbour's property.	2 [med]
	Adjoining properties have residential neighbours or regular recreation/other traditional use of forest or neighbour's property.	4 [high]

Table B.2 Risk rankings

Risk ranking	Score (from Table B.1)
High	Greater than or equal to 13
Medium	9–12
Low	Less than or equal to 8

B.9.8.4 Distribution of the sample

The sample shall be distributed in accordance with Clause B9.8.5 and by the risk categories identified in the risk assessment from Clause B9.8.3 above.

B.9.8.5 Selection of the participants

For field evaluations, at least 25% of the total internal audit sample shall be selected at random. A risk-based procedure for the selection of other internal audit participants shall be established, that aims to achieve approximately 10% of participants in the low-risk category, 15% in the medium and 50% in the high-risk category, where applicable. All numbers selected shall be rounded to the upper whole number.

The group organisation shall retain documented information as evidence of the random methodology used.

B.9.9 Management review

An annual management review shall cover the requirements of Clause 9.3, plus:

(a) changes in external and internal issues that are specifically relevant to the group management system; and

(b) information on the group performance, including the factors listed in Clause 9.3.

Outputs of the management review shall meet the requirements of Clause 9.3, plus any need for changes to the group management system.

The group organisation shall retain documented information as evidence of the results of management reviews.

B.10 Improvement

B.10.1 Nonconformity and corrective action

The group organisation shall meet Clause 10.2, plus make changes to the group management system, if necessary.

The group organisation shall retain documented information as evidence of the same requirements in the sustainable forest management standard.

A participant who was excluded from a group certification shall not be readmitted until they have been internally audited by the group entity before it is allowed to re-enter the group certification. The internal audit shall not take place sooner than 12 months after the exclusion.

B.10.2 Continual improvement

In addition to the requirements of Section 10, continual improvement shall include the group management system.

Appendix C (informative)
Examples of threat categories in legal instruments that relate to the definition of 'threatened'

Tables C.1 and C.2 list the legislation, legal instruments and associated threatened categories used in each jurisdiction currently relevant to this standard (see definition of threatened).

Table C.1 Australian legal context

Jurisdiction	Legal instrument	Threatened categories
Commonwealth	*Environment Protection and Biodiversity Conservation Act 1999*	Species: (a) Critically endangered (b) Endangered (c) Vulnerable (d) Conservation dependant Ecological communities: (a) Critically endangered (b) Endangered (c) Vulnerable
New South Wales	*Biodiversity Conservation Act 2016*	Species: (a) Endangered (b) Vulnerable Ecological community: (a) Critically endangered (b) Endangered (c) Vulnerable
	Fisheries Management Act 1994	(a) Critically endangered (b) Endangered (c) Vulnerable
Queensland	*Nature Conservation Act 1992*	(a) Critically endangered (b) Endangered (c) Vulnerable, and (d) Near threatened
South Australia	*National Parks and Wildlife Act 1972*	(a) Endangered (b) Vulnerable (c) Rare

Jurisdiction	Legal instrument	Threatened categories
Tasmania	*Threatened Species Protection Act 1995*	(a) Endangered (b) Vulnerable (c) Rare
	Nature Conservation Act 2002	(a) Threatened native vegetation communities
Victoria	*Flora and Fauna Guarantee Act 1988*	(a) Listed threatened species and communities
Western Australia	*Biodiversity Conservation Act 2016*	Species and ecological community: (a) Critically endangered (b) Endangered (c) Vulnerable

Table C.2 — New Zealand legal context

Jurisdiction	Legal instrument	Threatened categories
National	New Zealand's Threatened Species Strategy (draft)[a] New Zealand Threat Classification System (NZTCS) [SOURCE: NEW ZEALAND GOVERNMENT DEPARTMENT OF CONSERVATION. New Zealand Threat Classification System, 2018, [viewed June 2020]. Available at https://www.doc.govt.nz/about-us/science-publications/conservation-publications/nz-threat-classification-system/	(a) Nationally critical (b) Nationally endangered (c) Nationally vulnerable

[a] Species includes a collective grouping of species, subspecies, varieties and forms.

[b] IUCN threatened ecosystems.

Appendix D (normative)
Use of WHO Class 1A and 1B chemical pesticides

D.1 Scope

This appendix provides exemptions on the use of World Health Organization (WHO) Class 1A and 1B chemicals used for forest management in Australia and New Zealand.

Clause 11.2.5 of this Standard prohibits the use of WHO Class 1A and 1B, except in the following circumstances:

(a) no other viable alternative is available;

(b) the chemical is legally approved for use;

(c) the forest manager has documented risk assessments for the pesticides it uses, and implements preventative measures to minimise adverse social and environmental impacts; and

(d) it is listed in this appendix.

In addition, the following requirement applies.

The forest manager shall not use or agree to their use on its defined forest area, pesticides such as chlorinated hydrocarbons whose derivatives remain biologically active and accumulate in the food chain beyond their intended use, and any pesticides banned by international agreement.

Note: 'Pesticides banned by international agreements' are defined in the Stockholm Convention on Persistent Organic Pollutants and further guidance provided in Annexe III of the Rotterdam Convention.

D.2 Permitted WHO Class 1A and 1B chemicals

Table D.1 lists those WHO Class 1A and 1B chemicals permitted to be used for sustainable forest management in Australia and New Zealand. The use of these chemicals is accepted on the basis of (a) and (b) below, noting that all other requirements of Clause 11.2.5 apply.

(a) no other viable alternative is available; and

(b) the chemical is legally approved for use.

Table D.1 — Permitted WHO Class 1A and 1B chemicals

Chemical	Circumstances where permitted	Conditions of use
Sodium fluoroacetate (1080)	Legislated control of 'declared pests' where: (a) alternative control measures have been considered and implemented as far as practicable and judges to be ineffective; and (b) the use of 1080 does not pose an unacceptable risk to a population of non-target species.	The forest manager (or third party undertaking the application) shall develop and implement management strategies that minimise the amount of 1080 applied with the aim of reducing reliance of 1080 over time. The management strategy shall include a combination of controls and effective monitoring techniques.
Sodium fluoroacetate (1080)	Control of pale field rat (*Rattus tunneyi culmorum*)	Queensland only: The forest manager (or third party undertaking the application) shall develop and implement management strategies that minimise the amount of 1080 applied with the aim of reducing reliance of 1080 over time. The management strategy shall include a combination of controls and effective monitoring techniques. The use of 1080 does not pose an unacceptable risk to a population of non-target species.
Sodium Cyanide	Control of brush-tail possum (*Trichosurus vulpecula*)	New Zealand only. Ground-based application in bait stations only. Application must be carried out by an approved operator that holds a Controlled Substance License and in accordance with a Health Permission for the use of vertebrate toxins, both specifically granted for the use of sodium cyanide.
Consumer products for pest control. e.g. warfarin and brodifacoum	Pest control in the built environment where its use does not pose an unacceptable risk to non-target species.	As per label.

Note 1: Australia and New Zealand have a rigorous legislative and regulatory frameworks for the registration, control and use of pesticides.

Note 2: Australian and New Zealand governments have ratified the Stockholm Convention and obligations relating to it have come into force.

Note 3: No other pesticides whose derivatives remain biologically active and accumulate within the food chain beyond their intended use have been identified, which are legally available and approved for forest use within Australia and/or New Zealand.

Note 4: New Zealand has a program to eradicate bovine tuberculosis (TB). It is contained within a government regulation (Biosecurity National Bovine Tuberculosis Pest Management Plan Order 1998) which has been made under the *Biosecurity Act 1993*. The program is managed by an entity known as TB free managed by OSPRI. From time to time OSPRI will carry out operations to control possums (which are a bovine TB carrier) in a forest and will use 1080 (sodium fluoroacetate). Prior to entry into the forest, they will notify the forest manager of the operation. The forest manager is obliged under New Zealand law to comply with the requirements of the operation.

Note 5: Where Class 1A and 1B chemicals can be purchased in the consumer market, warfarin and brodifacoum are registered for use in Australia and New Zealand for rodent control and can be purchased as consumer products. This usage would relate to control of rodents in the built environment, and not in the context of forest management.

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