STANDARDS NEW ZEALAND
PAEREWA AOTEAROA

NZS AS 4708:2014

NZS AS 4708:2014
(AS 4708:2013, MOD)

New Zealand Standard

Sustainable forest management

A New Zealand adoption of AS 4708:2013, MOD

COMMITTEE REPRESENTATION

This adoption of AS 4708:2013 as a New Zealand Standard was prepared under the supervision of the P 4708 Committee the Standards Council established under the Standards Act 1988.

The New Zealand committee consisted of representatives of the following:

- Certification bodies
- Douglas-fir Association
- First Union
- Fish and Game New Zealand
- Lincoln University
- Local Government New Zealand
- Ministry for Primary Industries
- New Zealand Forest Owners' Association
- New Zealand Institute of Forestry
- New Zealand Timber Industry Federation
- Wood Processors' Association of New Zealand

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The following were represented on the Standards Reference Committee SRC AS 4708:

- Association of Accredited Certification Bodies (AACB)
- Australian Forest Growers (AFG)
- Australian Forest Products Association (AFPA)
- Australasian Pulp and Paper Industry Technical Association (APPITA)
- Balkanu Cape York Development Corporation
- Construction Forestry Mining Energy Union (CFMEU)
- Commonwealth Scientific and Industrial Research Organization (CSIRO)
- Ecological Society of Australia (ESA)
- ForestWorks
- Greening Australia Limited
- Independent Forest Policy and Forest Science Experts
- Institute of Foresters Australia (IFA)
- Planet Ark
- Timber Communities Australia (TCA)

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PREFACE

NZ This New Zealand adoption of the Australian Standard AS 4708:2013 was prepared by the Standards New Zealand Committee P 4708, Sustainable forest management.

NZ The objective of the adoption of this Standard is to provide forest managers with environmental, economic, social, and cultural criteria and requirements that support the sustainable management of forests. The Australian Standard that forms the basis of this New Zealand adoption, formerly known as the Australian Forestry Standard, was first published as an interim Australian Standard® in 2003 and a full Australian Standard® in 2007. After five years of application the Standard was reviewed in light of stakeholder expectations, new scientific and technological information, and changes to international norms for sustainable forest management. It was published as the Australian Standard® for Sustainable Forest Management in 2013.

NZ The P 4708 committee has reviewed AS 4708:2013 to ensure that the criteria and requirements are appropriate for New Zealand. Some modifications have been made in this adoption to reflect New Zealand conditions. These include:

a. Changes to terminology to reflect that used in the New Zealand forestry sector.

b. The addition of relevant New Zealand legislation.

c. Changes to recognize the application of the principles of the Treaty of Waitangi in New Zealand.

d. Changes to Criterion 3.9 to reflect the land use controls on conversion imposed under the Resource Management Act 1991.

Modifications to AS 4708:2013 are indicated at the appropriate places throughout this Standard (including where text has been removed). Where text has been modified, this is indicated by a sidebar and the text 'NZ'.

The Standard is intended for voluntary application to any forests being managed for the production of forest products and forest services, whether native or planted forests. It can be utilized 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 policies and regulations that deliver improved environmental, economic, social, and cultural outcomes.

Independent, accredited third-party certification against the Standard provides a clear and unambiguous statement that the production of forest products and forest services within a particular defined forest area is managed in accordance with a set of predetermined and clearly defined environmental, economic, social and cultural performance criteria and requirements that support the sustainable management of forests.

There are two informative supporting guidelines that accompany the Australian Standard. These guidelines have not been reviewed by the P 4708 committee as part of the Standards New Zealand adoption process. The guidelines do not create additional normative elements. At the time of publication, the sector is planning to develop guidance to NZS AS 4708:2014 for New Zealand users. This guidance will not be subjected to the Standards New Zealand processes for creating New Zealand Standards.

NZ

Standards New Zealand gratefully acknowledges Australian Forestry Standard Limited for the use of AS 4708.

OUTCOME STATEMENT

NZS AS 4708 provides forest owners and managers with a set of pre-determined and clearly defined environmental, economic, social, and cultural criteria that support the sustainable management of New Zealand forests.

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Introduction

Sustainable Forest Management

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

Management of forests should use the Precautionary Principle for prevention of environmental degradation and the principle of inter-generational equity to maintain the suite of forest values for present and future generations.

There are four principles to sustainable forest management that are embraced by the Standard:

Environmental sustainability

This entails maintaining and or enhancing:

- the ecological processes within forest ecosystems;
- the forest soil and geological features;
- food chains and energy flows;
- carbon, nutrient and water cycles; and
- the biodiversity of forests,

so as to provide viable and functional forest ecosystems. The forest ecosystem needs to support organisms to reproduce, whilst maintaining its productivity, adaptability and capability for self renewal. Forest management needs to support, and build upon these natural ecological components and processes.

Economic sustainability

This entails optimizing the economic benefits for income, employment, goods and services from the mixture of forest uses within ecological constraints. It requires that benefits to the forest manager exceed the costs incurred, and that some form of equivalent capital is handed down from one generation to the next so that our use of the forest does not preclude utilization options for future generations.

Social sustainability

This entails maintaining and enhancing the net social benefit derived from the mixture of forest uses while maintaining options for the future. This includes sustaining the relationship between ethics, social norms, human rights and development. An activity is socially sustainable if it conforms to ethical values and social norms, upholds human rights standards, and does not exceed a community's tolerance of change.

Cultural sustainability

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

Forest Certification Principles

The Standard is based on the following factors underlying the three principles of:

Governance:

- being independent and impartial, including a clear separation between development of standards and accreditation of certification bodies;
- complying with and where practical exceeding, legal and other requirements; and
- involving competent national accreditation bodies and independent, accredited third party certification bodies.

Quality:

- being scientifically based and involving the scientific community in its development;
- incorporating performance levels at appropriate scales through an open process involving all interested stakeholders;
- being based on the principles of sustainability;
- compatibility with an internationally-recognized environmental management system;
- being easily understood and leading to the same results when used by different certification bodies; and
- being regularly assessed, revised and updated in the light of new knowledge as part of a continual improvement process.

Accessibility:

- having transparent and understandable processes that are accessible to all stakeholders;
- being accessible to stakeholders with a balance of interests;
- being voluntary and including the broad participation of forest managers;
- accommodating all forest types, scales and ownership structures; and
- minimizing costs of certification and not making forest products uneconomical in comparison to other materials.

Use of the Standard

The Standard recognizes that native forests and plantations are managed for a variety of objectives. It sets out specific forest management performance requirements for operations and activities on the defined forest area. It establishes a systematic approach to forest management including requirements for stakeholder engagement. The Standard does not include any criteria related to the fitness of the forest products and forest services for any purpose. As such, it is fundamentally 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 environmental, economic, social and cultural performance requirements that support the sustainable management of forests.

The Standard is intended for voluntary application to any forests regardless of size or ownership. 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 recognizes 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.

Paragraph deleted. NZ

Forest owners or managers can form group forest certification schemes that can be certified to this Standard. *Sentence deleted.* NZ

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

The Standard is intended to support and strengthen the regulatory framework within which forest managers operate. Compliance with legislation is a minimum requirement. The Standard sets a suite of requirements that support the achievement of sustainable forest management and which may involve going beyond a legal minimum in order to gain benefits from certification.

The Standard does not set site-specific requirements for particular forest types, communities or individual operations as they vary with bioregion and legal jurisdiction. These are addressed under each level of government legal requirements.

There are requirements for researching, monitoring and evaluating the outcomes of management in relation to the forest management performance and stakeholder engagement requirements, and review and continual improvement of the management system.

Certification to the Standard is voluntary and only awarded on the basis of an audit undertaken by an independent third party auditor from an accredited Certification Body.

Process of Development and Revision

NZ The Australian Standard that forms the basis of this New Zealand adoption was prepared by the Standard Reference Committee formed for this purpose (SRC4708). The Standard Reference Committee is made up of representatives of a broad range of stakeholders covering environmental, economic, social and cultural interests. They have reviewed comments received during the two public comment phases and have prepared a standard that has been approved as an Australian Standard®.

NZ This New Zealand adoption was prepared by the Standards New Zealand Committee P 4708, Sustainable forest management. The P 4708 committee reviewed AS 4708 to ensure that the criteria and requirements are appropriate for New Zealand, and a draft was made publicly available to provide the opportunity for consideration and comment by New Zealand stakeholders. The P 4708 committee reviewed comments received during the public comment phase and developed the New Zealand modifications to prepare a standard that has been approved as a New Zealand Standard.

The requirements of the Standard are derived from certain elements of the International Organization for Standardization (ISO) environmental management system (EMS) Standard AS:NZS ISO 14001:2004, the Montreal Process criteria and indicators for temperate and boreal forests, the Programme for the Endorsement of Forest Certification Schemes' (PEFC) meta standard for sustainable forest management (PEFC ST 1003:2010), JAS-ANZ Requirements for Bodies Certifying Forest Management Systems and the principles and criteria of the Forest Stewardship Council. AS 4708 is the forest management standard of the Australian Forest 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 the Standard

The Standard consists of:

- an introduction that describes the rationale for a forest management standard; the process for its development including its structure, content, and use; and
- 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 compliance. Each criterion and requirement is named with a heading and number.

NZ *Paragraph deleted.*

The Standard

Scope

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

The 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, must demonstrate compliance with the requirements of each criterion.

Paragraph deleted. NZ

The Standard includes some general requirements that do not relate to sustainable forest management criteria but are required to allow the certification of the forest manager and identify their responsibilities in the chain of custody for forest products obtained from the defined forest area.

Qualifications for Scale and Intensity

The requirements are qualified and are applicable only where relevant to the actual operations of the forest manager and to their defined forest area. The scale and nature of the defined forest area, the scale and nature of the enterprise and the scale and nature of the impacts on the identified aspects of forest management can be considered in the application of the requirements and some will not apply in all cases. Unless the contrary intention appears the singular includes the plural and vice versa.

Normative References

As the Standard has been prepared to include within its requirements all of the elements that must be considered by forest managers without the need for reference to other sources for required elements, there are no normative references.

Definitions

For the purpose of the Standard, the definitions below apply.

aspect	An element of an enterprise's activities that can interact with environmental, economic, social or cultural factors and that can affect the outcomes of forest management for the production of forest products and forest services. A significant aspect is one that has, or can have a significant impact.
assessment	Process of determining the status or condition of a forest value by a person with technical expertise before or after a forest management activity. It is also undertaken to determine the impact and effectiveness of the forest management activity.
audit	A systematic and documented verification process of objectively obtaining and evaluating evidence to determine whether an organization's management system conforms to forest management performance criteria and requirements of the Standard.
biodiversity	The diversity of plants, animals and other living organisms in all their forms and levels of organization, and includes 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.
bioregion	Large, geographically distinct areas of land with common characteristics such as geology, landform patterns, climate, ecological features and plant and animal communities. In New Zealand, bioregions are known as ecological regions and are defined in: McEwen, W Mary (ed). *Ecological regions and districts of New Zealand*. New Zealand Biological Resources Centre. Wellington: Department of Conservation, 1987.
carbon cycle	The biogeochemical cycle by which carbon is exchanged among the living, land and water components, and the atmosphere of the Earth. It describes the movement of carbon as it is recycled and reused throughout the biosphere.

NZ

chain of custody	The 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.
code of practice	A set of objectives, outcomes, goals or operating procedures designed to control, regulate or govern field activities.
continual improvement	Process of enhancing the management system to achieve improvements in overall performance in line with the enterprise's forest management policy through monitoring, evaluation and review.
crown cover	Area of ground covered by tree canopies, ignoring overlaps and gaps within individual canopies.
damage agent	A factor that can cause a reduction to forest values or impact on forest ecosystem health and vitality including endemic or exotic species, and physical processes like cyclones and bushfires.
defined forest area	An area of forest (including land and water) to which the requirements of the Standard are applied. It includes productive and non-productive forest areas, streamside reserves, conservation areas, and roads, etc. The defined forest area is described by survey plans, legal title(s), gazettal notices or GIS shape files, whether as freehold, joint venture, agreement, lease or crown land. The forest manager seeking certification to the Standard will need to demonstrate management control and legal rights over the forest operations in the defined forest area through appropriate agreements or contracts, which allows them to achieve all of the requirements. The forest manager is precluded from omitting elements of its operation which would otherwise be included in its defined forest area from the scope of its certification.
degraded forest	A forest that has reduced capacity to provide goods and services because it has lost structure, function, species composition and or productivity normally associated with the forest type on that site. A degraded forest requires silvicultural intervention to restore its productivity.

direct dealing	Conduct by the forest manager which has the effect of undermining, or is likely to undermine, the authority of the representative organization of workers which occurs when the forest manager by-passes the representative organization of workers in order to engage in discussions, bargaining or negotiations with represented forest workers in relation to matters that fall within the scope of collective bargaining without the participation of the representative organization of workers.
disturbance regime	A pattern of disturbance events, such as fire or flooding, followed by a period of recovery from the disturbance, e.g. regrowth of a forest after a fire.
ecological integrity	The ability of the forest ecosystem to support and maintain key ecological processes and a community of organisms with a species composition, diversity and functional organization similar to the natural habitats within the region.
ecosystem	The aggregate of all living organisms and their interactions with each other and the non-living parts of the environment for a defined place or kind of habitat.
enterprise	An individual, company, organization, business or firm which exists to undertake forest management.
environment	Surroundings in which an organization operates, including air, water, land, natural resources, flora, fauna, humans and their interaction.
equal treatment	The behavior towards forest workers regardless of race, color, sex, sexual preference, age, physical or mental disability, marital status, family or carers responsibilities, pregnancy, religion, political opinion, union membership, national extraction or social origin.
establishment	The creation of a new forest or plantation arising from the treatment, seeding or the planting of a site with trees.
extraction track	A track along which logs are transported from the felling point to a nearby landing, loading or aggregation point (also known as a snig or skid track).

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 two metres and crown cover or potential crown cover of overstorey strata about equal to or greater than 20 per cent. This definition includes 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. NZ
Forest Management Plan	A plan (or a collection of plans, documents or other instruments that have been prepared by, or for, or are available to, the forest manager) that demonstrates compliance with the requirements specified in the Standard for the management of forests within the defined forest area.
forest management policy	Statement of commitments, intentions and principles in relation to overall forest management which provides a framework for action and setting of objectives and targets.
forest manager	The person or enterprise with legal control of forest operations within the defined forest area.
forest operations	A process, method or series of actions, especially of a practical or mechanical nature within a forest related to its management or use for the production of forest products, including but not limited to road construction and/or maintenance, timber harvesting and extraction, stream crossing constructions, non-commercial thinning, slash disposal, site preparation and/or prescribed burning.
forest products	The physical goods derived from the defined forest area including all wood and non-wood commodities.
forest services	The environmental, economic, social and cultural benefits derived from the defined forest area including the full range of environmental and ecological services.
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.

forest worker	A person who carries out work in any capacity for the enterprise.
NZ genetically-modified trees	Trees which meet the definition of genetically modified organism in the Hazardous Substances and New Organisms Act 1996 or replacement legislation.
greenhouse gases	Those gaseous constituents of the atmosphere, both natural and anthropogenic, that absorb and emit radiation at specific wavelengths within the spectrum of infrared radiation emitted by the Earth's surface, the atmosphere and clouds. This property causes the greenhouse effect. Water vapor (H_2O), carbon dioxide (CO_2), nitrous oxide (N_2O), methane (CH_4) and ozone (O_3) are the primary greenhouse gases in the Earth's atmosphere.
group forest certification scheme	A scheme or arrangement managed by a Group Manager on behalf of a Group Entity allowing for the certification of Group Members under one Forest Management Certificate.
growth stages	The stages of ecological succession of a plant community, for example, from young stage to old stage; the characteristic sequence of biotic communities that successively occupy and replace each other, altering in the process some components of the physical environment over time.
impact	Any change to environmental, economic, social or cultural factors, whether adverse or beneficial, wholly or partially resulting from the enterprise's activities. A significant impact is important, notable, or of consequence, having regard to its context or intensity.
indigenous lands	Areas inhabited and exclusively possessed by indigenous people.
NZ Indigenous people	People who are regarded as indigenous on account of their descent from the populations which inhabited the country at the time of colonization. Indigenous people who have authority in a particular place are known as the tangata whenua.
inventory	The systematic collection of data and forest information for assessment or analysis.

known and potential habitat	An area or areas occupied, or periodically or occasionally occupied, by a species, population or ecological community and includes any biotic or abiotic component, and into which organisms of that kind have the potential to be reintroduced.
monitoring	A systematic, planned series of measurements or observations taken at regular intervals of time to provide the basis for analyzing and reporting changes to implementation, effectiveness and trends.
Montreal Process	The informal agreement by the Montreal Process Group of countries (currently 12) to work towards the implementation of a comprehensive set of criteria and indicators for the conservation and sustainable management of forests. See http://www.montrealprocess.org/.
native vegetation	Any locally indigenous vegetation community containing the suite of species and habitats normally associated with that vegetation type.
native vegetation conversion	Removing native vegetation, or a significant portion of the characteristic suite of species for the native vegetation community, to establish a plantation or replace with non-forest cover.
native vegetation type	A classification to describe uniform native vegetation according to their life form, associations, height and the projected foliage cover of the predominate stratum or by other means that is applied within a bioregion.
natural heritage places	Places with outstanding natural heritage values that are protected under the National Parks Act 1980, the Conservation Act 1987, the Reserves Act 1977 or the Historic Places Act 1993 deemed to be of significance to New Zealand. NZ
non-wood products	Forest products other than wood.
objective	Overall goal arising from forest management policy that an enterprise sets itself to achieve and which is quantified where practical.

old-growth forest	Ecologically mature forest in which the effects of disturbances are now negligible.
performance outcomes	Measurable results of the management system related to an enterprise's environmental, economic, social and cultural aspects and impacts based on the requirements of the Standard.
pesticides	Chemicals (including herbicides, insecticides and fungicides) used to control biological damage agents.
plantation	Stands of trees of either native or exotic species, created by the regular planting, sowing or control of cuttings, seedlings, seed or coppice.
Precautionary Principle	Where there are threats of serious or irreversible environmental damage, lack of full scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation. In applying the Precautionary Principle, decisions should be guided by; • scientifically credible evidence of a threat, and • assessing whether the threat is irreversible and/or disproportionate; if so, applying a remedy sufficient to prevent that threat arising, otherwise, making a decision on an assessment of the risk-weighted consequences of various options.
productive capacity	Capacity to produce forest products and forest services. Includes non-wood products and for plantations, alternative crop types. It can be applied to non-market benefits such as ecosystem services.
provenance	A term identifying the original geographic source of seed, pollen, or propagules.
regeneration	New trees arising naturally or with human assistance after harvesting, fire or other causes have removed all or some of the overstorey.
region	An area considered as a unit for geographical, functional, social or cultural reasons; an administrative division of a country.

riparian zone	An area, usually of linear configuration, that is geographically and ecologically associated with a river, stream or wetland.
rotation	The planned number of years between regeneration or planting and the subsequent harvesting of a stand of trees.
Significant Biodiversity Values	Any of the following natural values: • known or likely occurrences of threatened or at risk species, populations and their known and potential habitat; and/or as listed on current schedules of relevant legislation; NZ • threatened and at risk ecological communities or ecosystems and/or as listed on current schedules of relevant legislation; NZ • regionally or nationally significant concentrations of biodiversity; • disjunct or outlier populations, refugia and centres of endemism; • native vegetation associated with land environments, (defined by Land Environments of New Zealand at Level IV), that have 20 per cent or less remaining in native cover; NZ • forest types or ecosystems and old-growth forest which are rare, depleted or under-represented in the regional conservation reserve system; • habitat of migratory species listed under the relevant legislation; or • Natural Heritage Places.
silviculture	The science and practice of controlling the establishment, growth, composition, health and quality of forests and woodlands to meet the diverse needs and values of landowners and society.
silvicultural system	A planned program of treatments throughout the life of a stand to achieve stand structural objectives, for the production of forest products and forest services or other values based on integrated resource management goals. A silvicultural system includes harvesting, regeneration and stand-tending methods or phases. It covers all activities for the entire length of a rotation or cutting cycle.
site	The area in which a plant or stand grows, considered in terms of its environment, particularly as this determines the type and quality of the vegetation the area can carry.

social benefit	The non-monetary and rarely calculable benefits to society arising from forms of un-priced economic activity.
stakeholder	There are two types of stakeholders included in this definition. Interested stakeholders are groups and individuals who have environmental, economic, social, cultural interests in the management of the defined forest area. Affected stakeholders are individuals or groups directly impacted by the enterprise's activities.
Stakeholder Engagement Plan	A plan or a collection of plans, documents or other instruments that have been prepared by, or for, or are available to, the forest manager that demonstrates compliance with the requirements specified in the Standard for proactive engagement with stakeholders.
stand	A distinguishable unit of forest consisting of trees sufficiently uniform in species composition, structure, and growing on a sufficiently uniform site.
structural elements	The components of habitat determined by their location and arrangement such as standing and fallen dead wood, hollow bearing trees, rocks and caves.
sustainable yield	The sustainable yield is a schedule of planned wood flows to be harvested over an extended planning period in order to meet the objectives of the organization subject to; • applying the relevant contractual and other supply commitments, silvicultural regimes, operational and social considerations; • maintaining management and protection of the estate during any intervals in which wood flows cease or are markedly reduced; • ensuring that, at the end of the planning period, the forest as a whole is left in a better, or at least as good a, condition for future generations as at the start of the planning period, in terms of relevant metrics for productive capacity and other values; and • conducting periodic reviews to update the forest inventory and re-calculate sustainable yield, especially in order to adapt the Forest Management Plan to any unexpected changes since the last review.

thinning	A 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.
threatening process	A process 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 legislation.
traditional uses	Legal and authorized uses including natural, cultural, social, recreational, religious and spiritual heritage uses, with a long habitual or customary history. NZ

Forest Management Criteria and Requirements

The Standard defines sustainable forest management according to a set of nine criteria. Criterion 1 addresses a management system for the enterprise. Criterion 2 addresses stakeholder engagement, and the remaining criteria address forest management performance. For each criterion, the Standard establishes a number of requirements that must be met in order to achieve and maintain certification. There are two General Requirements that need to be achieved and maintained for an enterprise to be certified to the Standard. These are listed below.

This approach enables and encourages continual improvement to forest management operations and outcomes based on learning and experience. It recognizes that forests will change over time due to human activities and natural processes, and requires management to be adapted as our understanding of the relationship between management actions and forest values improves. While the Standard separates the key forest values and sets particular performance requirements for them, it is recognized that they are interconnected and should not be considered in isolation.

General Requirements

0.1 DEFINED FOREST AREA	1. The forest manager shall define the area of forest to which the Standard applies and demonstrate management control over forest operations through appropriate agreements or contracts, for the purpose of the requirements of the Standard. 2. The forest manager shall: a. describe, record and map the defined forest area and maintain and regularly update a register of all separately described titles, schedules, blocks, compartments, coupes or other land components; b. monitor and document any changes to the defined forest area; and c. make the maps of the defined forest area (at a scale not smaller than 1:250,000) publicly available.
0.2 CHAIN OF CUSTODY	1. The forest manager shall ensure that forest products and services that are sold or supplied as 'certified' are identifiable as originating from the defined forest area by the provision of appropriate documentation. 2. The forest manager shall: a. describe the processes relating to the transport and handling of forest products up to the point of sale or transfer; and b. demonstrate control of the forest products up to the point of sale or transfer.

Criterion 1 – Systematic Management

Forest management shall be undertaken in a systematic manner appropriate to the nature and scale of the enterprise and provide for continual improvement.

1.1 POLICY	1. The forest manager shall define a forest management policy that includes commitments to: a. a systematic approach to forest management; b. continual improvement in performance outcomes; c. compliance with relevant legislation and other external requirements to which the forest manager subscribes including the requirements of the Standard; d. compliance with the principles of the Treaty of Waitangi; NZ e. provision of resources necessary to meet the Standard; f. a process of regular review of the forest management system; and g. proactive engagement with stakeholders.
1.2 FOREST MANAGEMENT PLAN	1. The forest manager shall have a Forest Management Plan that delivers the policy commitments. 2. The Forest Management Plan shall: a. identify applicable legal requirements and other requirements to which the forest manager subscribes; b. identify and assesses the significance of specific aspects and impacts of activities relevant to the requirements of the Standard; c. set forest management objectives, targets and monitoring processes for identified significant impacts relevant to the requirements of the Standard; d. demonstrate consideration of stakeholder input; e. state the scope and objectives of forest management; f. include a description of the forest including current condition and inventory results and forecasts; g. describe the forest values to be managed, including those important for the protection of environmental, economic, social and cultural benefits; h. describe and provide a rationale for silvicultural regimes; and i. describe the relevant operating conditions and controls for specified activities.

1.3 IMPLEMENT-ATION	1. The forest manager shall implement a management system to deliver the Forest Management Plan that is based on, inventory, planning, implementation, monitoring, evaluation and review processes. 2. The forest manager shall ensure that: a. evidence of a legal right to manage the forests within the defined forest area is maintained; b. operational plans, procedures, guidelines and other documented controls are in place and effective in achieving legal and other requirements, the requirements of the Standard and the forest management objectives and targets set for significant impacts; c. roles and responsibilities are defined and assigned and there are sufficient resources and other capacity to implement the management system; d. staff and contractors have required competencies to implement the management system; e. forest operations make best use of natural structures and processes, provide adequate genetic, species and structural diversity, and use preventative biological measures to maintain and enhance the health and vitality of forests wherever is economically feasible; f. procedures for communication, document management and record keeping are established and maintained; and g. contingency/emergency plans are in place to respond to and manage accidents and emergency situations and that these plans are periodically tested.
1.4 MONITORING AND CORRECTIVE ACTIONS	1. The forest manager shall monitor and evaluate activities and their outcomes to ensure that requirements of the Standard are met. 2. The forest manager shall implement measures to correct identified deficiencies and to prevent repeat occurrences, to support continual improvement in performance outcomes. 3. The forest manager shall ensure procedures are in place for: a. checking operational plans and practices for compliance with legislation, codes of practice, regional and local prescriptions, guidelines and other relevant controls; b. monitoring and auditing of forest operations for conformance with planned practices and to ensure that the requirements of the Standard are met; c. routine monitoring and evaluation of the performance outcomes using approaches that are as scientifically-rigorous and sufficiently powerful as is possible and practical and that allow timely remedial actions to be applied when requirements of the Standard are not met; and

	d. periodically auditing of the management system to determine conformance with the requirements of the Standard and that planned practices have been properly implemented and maintained.
1.5 REVIEW	1. The forest manager shall periodically review and where necessary modify the management system and its procedures to ensure continuing suitability, adequacy and effectiveness and to ensure continual improvement in performance outcomes are achieved. 2. The review shall include: a. the results of auditing and monitoring of forest operations and activities; b. monitoring and feedback mechanisms, including the adequacy of monitoring activities; and c. policies, the Forest Management Plan, the Stakeholder Engagement Plan, other plans, objectives and targets, stakeholder interactions, research findings and changes to other elements of the management systems to meet changing circumstances, new information and the commitment to continual improvement. 3. The forest manager shall keep a record of the review and document any changes to management and performance outcomes.
1.6 RESEARCH	1. The forest manager shall base forest management on the results of current and ongoing scientific research where available and other sources of information including but not limited to expert opinion, ecological theory and practical experience. 2. The forest manager shall contribute to research activities and data collection needed for sustainable forest management or support relevant research activities carried out by other organizations.

Criterion 2 – Stakeholders

Forest management shall demonstrate proactive stakeholder engagement

2.1 IDENTIFY STAKEHOLDERS	1. The forest manager shall establish and maintain a list of stakeholders and identify their interests and whether they are affected or interested stakeholders.
2.2 STAKEHOLDER ENGAGEMENT PLAN	1. The forest manager shall establish and maintain a Stakeholder Engagement Plan that: a. acknowledges the positive contribution that stakeholder perspectives and expertise make to forest management; b. includes an evaluation of the direct effects of forest management on stakeholders; c. includes an evaluation of stakeholder feedback on the impacts associated with forest management; d. describes how stakeholder feedback is sought, considered, and recorded; e. recognizes the different needs of affected and interested stakeholders; f. identifies what information shall be made publicly available; g. describes processes for managing complaints and dispute resolution mechanisms; and h. ensures that stakeholder views are considered in the development and periodic review of the Forest Management Plan.
2.3 STAKEHOLDER PARTICIPATION	1. The forest manager shall facilitate and encourage meaningful engagement of stakeholders by: a. providing appropriate opportunities for stakeholders to make their views known on forest management and to influence decision-making; b. providing ways for stakeholders' views to be considered and incorporated in Forest Management Plans; and c. addressing complaints, disputes and grievances in a timely manner.

2.4 STAKEHOLDERS AFFECTED BY FOREST OPERATIONS	1. The forest manager shall strive to build constructive relationships with affected stakeholders including: a. consideration of the impacts of planned forest operations on affected stakeholders; b. timely notification to affected stakeholders that may be directly affected by planned forest operations prior to their commencement; c. taking actions to mitigate adverse impacts on affected stakeholders; and d. communication of the long term environmental, economic, social and cultural benefits of sustainable forest management.
2.5 RECORDS	1. The forest manager shall maintain records of communication with stakeholders in accordance with their Stakeholder Engagement Plan including outcomes of all complaints, disputes and grievances.
2.6 PUBLIC DISCLOSURES	1. The forest manager shall make publicly available summaries of: a. the Forest Management Plan; and b. the audit reports provided by the certification body.

Criterion 3 – Biodiversity

Forest management shall maintain or enhance biodiversity.

3.1 IDENTIFY BIODIVERSITY PRIORITIES	1. The forest manager shall identify biodiversity including structural elements within the defined forest area. 2. The forest manager shall identify biodiversity priorities for maintenance and or enhancement within the defined forest area.
3.2 MAINTAIN OR ENHANCE BIODIVERSITY	1. The forest manager shall manage forests to progressively establish and maintain a distribution of forest cover, stand structural elements and growth stages that is demonstrated to support the maintenance or enhancement of biodiversity priorities. 2. The forest manager shall take action to address threatening processes affecting or likely to affect the defined forest area.
3.3 IDENTIFY SIGNIFICANT BIODIVERSITY VALUES	1. The forest manager shall identify the Significant Biodiversity Values within the defined forest area. 2. The assessment of the significance of biodiversity shall be based on existing knowledge, research results, the biodiversity regulatory frameworks and relevant forest planning instruments and shall be assessed in a bioregion.
3.4 MAINTAIN OR ENHANCE SIGNIFICANT BIODIVERSITY VALUES	1. The forest manager shall implement effective strategies, practices and other controls to support the maintenance or enhancement of Significant Biodiversity Values. 2. The forest manager shall minimize any adverse impacts of forest operations on Significant Biodiversity Values by planning and implementing forest operations consistent with those actions specified in relevant recovery, action or threat abatement plans, codes of practice and prescriptions, recognized interim guidelines or other instruments and take account of known information and relevant specialist advice. 3. The forest manager shall develop and implement a plan to enhance the capacity of the forest to support Significant Biodiversity Values, where they exist and have been diminished or degraded.
3.5 MONITOR BIODIVERSITY	1. The forest manager shall monitor biodiversity priorities, using a scientifically based monitoring methodology developed in consultation with stakeholders and relevant experts, 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 Significant Biodiversity Values. 2. The forest manager shall document the biodiversity monitoring objectives and include a description of how the monitoring results will be used to evaluate the effectiveness of the forest management biodiversity objectives set in the Forest Management Plan.

3.6 REVIEWS OF BIODIVERSITY	1. The forest manager shall periodically review and reassess the biodiversity priorities using monitoring results and other relevant information.
3.7 REGENERATION	1. The forest manager shall regenerate native vegetation with species and provenances native to the area, or from an equivalent locality, as far as reasonably practicable, to maintain local gene pools and species mixes.
3.8 INTRODUCED GENETICS	1. The forest manager shall evaluate the impact of species, provenances or populations established in plantations, and constrain their spread in circumstances where a risk to the ecological integrity of adjacent native vegetation has been identified. 2. The forest manager shall not use genetically-modified trees. 3. The forest manager shall manage plantations to develop and implement strategies to minimize the risk and consequences of genetic pollution from pollen flow between plantations and native forest species. The strategies will consider the conservation status of any adjacent forest ecosystem or gene pool, the probability that pollen-mediated gene flow will occur, and the impact that such gene flow is likely to have on any adjacent population or forest ecosystem. 4. The forest manager shall implement measures to minimize and control the escape of plantation species into areas outside the defined forest area.
3.9 NATIVE VEGETATION CONVERSION	1. The forest manager shall not convert native vegetation to plantation or to non-forest except in circumstances where the conversion: a. is in compliance with the Resource Management Act 1991 and, where the forest manager is a party to it, the New Zealand Forest Accord; and b. is in compliance with the Forest Management Plan. 2. The forest manager shall, in all of these circumstances above: a. ensure that native vegetation conversion occurs only where it does not involve occurrences of Significant Biodiversity Values or areas of native vegetation that are part of recognized offsets; and b. commit to and demonstrate an offset process to effectively balance the environmental outcomes of the native vegetation conversion for relevant environmental values. 3. *Clause deleted.*

NZ

NZ

Criterion 4 – Forest Productive Capacity

Forest management shall maintain the productive capacity of forests and land.

4.1 IDENTIFY PRODUCTIVE CAPACITY	1. The forest manager shall identify existing and potential productive uses of the defined forest area to support the maintenance of the long term productive capacity of the forest.
4.2 IDENTIFY HARVEST RATES	1. The forest manager shall identify harvesting rates for forest products commensurate with the long term productive capacity of the forest and shall consider: a. structure and condition of the forest; b. estimates of sustainable yield; c. social impacts; d. markets; e. optimal use of the defined forest area; and f. ability to manage planting, regeneration or establishment programs.
4.3 PLAN AND MONITOR USE	1. The forest manager shall plan operations to ensure the productive capacity of the forest is not compromised. 2. The forest manager shall monitor forest condition, growth and harvest rates. 3. The forest manager shall manage plantations to ensure that planning considers the selection of suitable species for plantation establishment appropriate to each site.
4.4 INFRA-STRUCTURE	1. The forest manager shall plan, establish and maintain adequate infrastructure such as roads and bridges to ensure efficient delivery of forest products while minimizing negative impacts on the environment.
4.5 SILVICULTURE	1. The forest manager shall demonstrate that silvicultural systems are appropriate for: a. the forest type; b. the specific stand and site conditions; c. forest management requirements; d. biodiversity priorities; e. market conditions; and f. product requirements.

4.6 ESTABLISH-MENT	1. The forest manager shall ensure that natural or assisted regeneration of native forests and establishment of plantations is effective and timely. 2. The forest manager shall assess the effectiveness of regeneration of native forests and take remedial action where necessary to ensure that the species composition, forest health and productive capacity are not diminished. 3. The forest manager shall assess the stocking rate of plantations and take remedial action where necessary to ensure effective establishment and growth.
4.7 DAMAGE TO GROWING STOCK	1. The forest manager shall implement actions to minimize damage to forest growing stock during forest operations.
4.8 UNPLANNED FIRE	1. The forest manager shall plan and implement measures to manage the extent and impact of unplanned fires.
4.9 NON-WOOD PRODUCTS	1. The forest manager shall regulate, monitor and control the production of non-wood products from the defined forest area where the forest manager is responsible for regulation of such use.

Criterion 5 – Forest Ecosystem Health

Forest management shall maintain forest ecosystem health and vitality.

5.1 IDENTIFY DAMAGE AGENTS	1. The forest manager shall identify and assess potential damage agents that could impact forest ecosystem health and vitality.
5.2 MAINTAIN HEALTH	1. The forest manager shall prioritize, plan, and implement practices to support the maintenance of forest ecosystem health and vitality. 2. The forest manager shall plan to ensure that damage resulting from forest operations stays within tolerable levels and degradation is minimized. 3. The forest manager shall monitor forest health and take action to control or eradicate damage agents.
5.3 WEEDS AND PESTS	1. The forest manager shall identify exotic and endemic weed species and pest animals and take action to control or eradicate them within the defined forest area. 2. The forest manager shall take action to constrain the spread of weeds and pests. 3. The forest manager shall periodically evaluate the effectiveness of such control actions and modify the control methods where necessary.
5.4 FIRE AND DISTURBANCE REGIMES	1. The forest manager shall manage fire and other disturbance regimes within native forests to maintain or enhance forest ecosystem health. 2. The forest manager shall periodically review the contribution of the disturbance regime to the maintenance of forest ecosystem health and vitality within native forests. 3. The forest manager shall use the results of the review to adjust the disturbance regime where necessary to increase its effectiveness.
5.5 REHABILITATE DEGRADED FOREST	1. The forest manager shall identify sites within the defined forest area that are degraded and facilitate a prioritized program for the rehabilitation of degraded forests.
5.6 CHEMICAL USE	1. The forest manager shall minimize the use of chemicals and any adverse impacts arising from their use. 2. The forest manager shall not use World Health Organization Class Ia and Ib pesticides unless legally approved for use. 3. The forest manager shall not use pesticides banned by any international agreements defined in the Stockholm Convention on Persistent Organic Pollutants 2001.

5.7 DAMAGE AGENT SALVAGE OPERATIONS	1. The forest manager may conduct salvage operations to recover forest products from forests within the defined forest area that have been affected by damage agents. 2. 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 recognize the values in the reserves. 3. 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. 4. 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 minimizing the level of physical disturbance on regenerating areas. 5. The forest manager shall ensure that salvage operations are carried out consistent with the requirements of the Standard.

Criterion 6 – Soil and Water Resources

Forest management shall protect soil and water resources.

6.1 NZ IDENTIFY SOIL AND WATER VALUES	1. The forest manager shall identify and assess the soil and water values, both physical and cultural, that can be adversely affected by forest operations.
6.2 WATER QUALITY	1. The forest manager shall manage forest operations to minimize adverse changes to water quality (physical, chemical or biological) with the objectives of: a. minimizing transport of soil into waterways; b. maintaining streamside management zones; and c. designing, constructing and maintaining temporary and permanent roads and crossings of waterways to recognized standards intended to minimize degradation of water quality.
6.3 WATER QUANTITY	1. The forest manager shall manage forest operations to ensure hydrological flows are in accordance with regulated catchment goals where they exist. 2. The forest manager shall minimize adverse impacts of changes in hydrological flows by ensuring that: a. both long term and short term disturbances to hydrological flows relative to the existing situation are considered; and b. the environmental impacts of both increased and reduced hydrological flows are considered.
6.4 SOIL PROPERTIES	1. The forest manager shall manage forest operations to minimize nutrient losses. 2. The forest manager shall manage forest operations to protect and maintain the physical, chemical and biological properties of soil and improve those properties where appropriate and reasonably practicable. 3. The forest manager shall: a. minimize the extent of land exposed to major soil disturbance during harvesting operations; b. ensure that soil disturbance does not exceed that specified in relevant codes and equivalent instruments or operational guidelines; and c. promptly rehabilitate extraction tracks, temporary roads and product storage areas with appropriate techniques including re-vegetation and drainage. 4. The forest manager shall demonstrate the use of soil conservation techniques that aim to maintain soil properties in the long term.

6.5 POLLUTION	1. The forest manager shall manage forest operations to prevent or constrain water pollution and soil contamination, and take reasonable actions to ensure that: a. unacceptably high levels of chemicals from applications are not transported into waterways; b. disposal of waste fuels, lubricants and chemicals is carried out to avoid water pollution and soil contamination; and c. any spills are promptly contained and affected areas appropriately remediated.

Criterion 7 – Carbon

Forest management shall maintain or enhance forests' contribution to the carbon cycle

7.1 CARBON CYCLE	1. The forest manager shall manage the forest within the defined forest area to maintain or enhance its contribution to carbon cycles.
7.2 MINIMIZE FOSSIL FUEL USE	1. The forest manager shall demonstrate a commitment to minimizing fossil fuels usage by forest operations and in the conduct of the enterprise.
7.3 MEASUREMENT OF CARBON STORAGE	1. The forest manager shall have a quantitative estimate of the current and future carbon storage on the defined forest area.

Criterion 8 – Cultural Values

Forest management shall protect and maintain, for Indigenous and non Indigenous people, their natural, cultural, social, recreational, religious and spiritual heritage values. The rights of Indigenous people which are expressed in the Treaty of Waitangi shall be recognized and respected. NZ

8.1 INDIGENOUS PEOPLES' VALUES	1. The forest manager shall recognize the rights, responsibilities and values of Indigenous people who hold traditional cultural connection/mana whenua to/over the land. 2. On land within the defined forest area where these rights, responsibilities and values are held, this shall include: a. including the rights of tangata whenua in decision making to ensure the continued protection of those values; b. applying practices and protocols that are consistent with Indigenous people's cultural and spiritual values that support and endorse sustainable development and management of forests to the defined forest area; c. actively promoting through education the rights and interests of indigenous peoples in forests and lands; d. supporting Indigenous people's economic and social aspirations in sharing benefits from the management of forests; and e. respecting Indigenous people's cultural and traditional customs in Forest Management Plans.	NZ NZ
8.2 INDIGENOUS PEOPLES' HERITAGE VALUES	1. The forest manager shall protect and maintain Indigenous people's cultural, religious, spiritual and social heritage values through the identification of known values. 2. The forest manager shall consult with the relevant Indigenous people to: a. identify and assess the significance of Indigenous peoples heritage values; b. consider and incorporate their views in the preparation and review of the Forest Management Plan; and c. prevent damage to significant values during forest operations.	NZ NZ

8.3 OTHER HERITAGE VALUES	1. The forest manager shall assess the significance of cultural, religious, spiritual and social heritage values in a regional context based on relevant heritage studies and forest planning instruments. 2. The forest manager shall protect and maintain significant heritage values. 3. The forest manager shall consider significant heritage values in the preparation and review of the Forest Management Plan. 4. The forest manager shall implement actions in consultation with the appropriate bodies to avoid damage to significant heritage values during forest operations.
8.4 LEGAL AND TRADITIONAL USES	1. The forest manager shall allow existing legal and traditional uses of the forests to continue within the defined forest area. 2. The forest manager shall pursue negotiated outcomes with recognized and affected parties, where such uses threaten the condition of the forests or the achievement of the forest management performance requirements.

Criterion 9 – Social and Economic Benefits

Forest management shall maintain and enhance long-term social and economic benefits.

9.1 REGIONAL DEVELOPMENT	1. The forest manager shall: a. 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; b. support regional industry and regional communities, including commitments to local procurement where possible and fair contracts with suppliers of goods and services.
9.2 OPTIMAL USE	1. The forest manager shall pursue the efficient and optimal use of harvested forest products to encourage best use of forests within the defined forest area having due regard to the environmental, economic, social and cultural requirements of the Standard. 2. The recovery and value adding of otherwise wasted forest products shall be encouraged wherever possible.
9.3 ILLEGAL ACTIVITIES	1. The forest manager shall take action to prevent unauthorized or illegal activities within the defined forest area where practical.
9.4 SKILLS DEVELOPMENT	1. The forest manager shall: a. identify opportunities to support employment and skills development of forest workers including, but not limited to, nationally endorsed and or recognized competencies and qualifications where appropriate; and b. implement identified opportunities for forest workers through appropriate development actions.
9.5 HEALTH AND SAFETY	1. The forest manager shall foster a safe working environment by: a. complying with relevant workplace health and safety legislation and regulations; b. facilitating improvements in workplace health and safety; c. adopting working conditions that do not endanger health or safety; and d. co-operating and consulting with forest workers and their representative organizations where they exist, on workplace health and safety.

NZ	9.6 WORKERS' RIGHTS	1. The forest manager shall recognize the rights of forest workers to: a. join a union or organization of workers; b. participate in collective bargaining; and c. associate freely. 2. The forest manager shall: a. support equal employment opportunities and use qualifications, skill, experience and merit as the basis for recruitment and advancement of forest workers; and b. ensure that all forest workers are afforded fair and equitable treatment. 3. The forest manager shall demonstrate that; a. where it engages in collective bargaining, such bargaining: i. takes place with representative workers' organizations where they exist; ii. does not involve direct dealing; iii. takes place in good faith; and iv. involves the forest manager's best efforts to reach agreement; b. representatives of organizations of forest workers have access to employees 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; c. all forest workers are engaged freely and are duly compensated; d. all forest workers are greater in age than the completion of compulsory school attendance age; and e. it is in compliance with legal obligations creating minimum employee entitlements including but not limited to those set out in national legislation and collective bargaining agreements.

AMENDMENTS

No.	*Date of issue*	*Description*	*Entered by, and date*

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