



# Forests NSW Sustainability Reporting Supplement

2010-11

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# Introduction

This document provides background and contextual information relating to Social, Environmental, Economic and Sustainability indicators contained within the *Forests NSW Annual Report 2009–10 Social, Environmental and Economic Performance*.

## 1. Forests NSW Reporting Context

Forests NSW has a range of voluntary and statutory reporting commitments at the state, national and international levels.

The organisation has been producing public reports on environmental and social values since 1997-98. The Forests NSW sustainability report was entitled *Seeing Report* between 2001 and 2008. The title reflects Forests NSW commitment to Social, Environmental and Economic reporting (Seeing). Since 2009 the sustainability report was produced as an integral part of the Forests NSW annual report.

The Forests NSW history of reporting social, environmental and economic indicators is part of the organisations commitment to communicate with the community, staff and other stakeholders and to monitor performance in managing NSW public forests for a range of values identified as being of particular importance to Forests NSW, its customers and stakeholders.

### Sustainability Reporting

Over the past fourteen years Forests NSW has developed its reporting framework along the lines of sustainability reporting. The report addresses three key areas of sustainability – social, environmental and economic.

- Social – building partnerships and generating economic and social benefits within the community, especially for rural and regional communities; developing and valuing staff.
- Environmental – ecologically sustainable management of native and planted forests to protect and enhance environmental and conservation values and to help meet the demands of future markets for environmental services.
- Economic – ensuring an adequate return to the Government and public of NSW from the marketing of a range of values from the State’s native forests and plantations; developing innovative products, services and mechanisms to facilitate investment in new planted forests and environmental values of forests.

An addition sphere focuses specifically on:

- Sustainability – managing State forests for the long-term and retaining opportunities for future generations to meet their needs and expectations, while providing for the present.

Within each sphere a number of forest values have been identified as fundamental to the sustainability of the organisation and the way Forests NSW manages forests. Each forest value is described using a number of specific indicators.

While each sphere, forest value and indicator is presented separately, the framework recognises that each indicator may relate to one or more spheres.

To demonstrate performance during the reported period symbols are used in the performance tables at the beginning of each section of the report to reflect progress towards meeting the stated objectives.

*Forests NSW Annual Report 2010-11 Social, Environmental and Economic Performance* has been assessed against the Global Reporting Initiative Guidelines (GRI 3) and determined to adhere to GRI

Guidelines Application Level B. To view how Forests NSW annual reporting relates to GRI 3 see section 6.

### **Other Reports**

In addition to research directly carried out, Forests NSW also has a Memorandum of Understanding in place with NSW Trade and Investment through which Forests NSW supports research into key areas. You can find out more about these and other research projects in the annual *Science & Research & Forests NSW Research & Development Annual Report*.

Forests NSW produces a *Facts and Figures* booklet, which provides a range of information including:

- Key comparative indicators at national state and corporate levels
- Major customers
- Regional timber revenue by broad timber product
- Carbon balance and sequestration estimates
- Forest productivity indicators
- Safety performance
- Range of key facts

In part 2 of *Forests NSW Annual Report 2010-11* details of Forests NSW financial and corporate performance as required under the *Public Finance and Audit Act 1983* and the *Annual Reports (Statutory Bodies) Act 1984* are recorded.

Forests NSW reports its performance on implementing both Regional Forest Agreements and NSW Forest Agreements by contributing to a range of state level reports:

- Regional Forest Agreement annual reports;
- Forest Agreement annual reports;
- Forest Agreement Criteria and Indicator reports;
- IFOA (Integrated Forestry Operation Approvals) reports;
- New South Wales State of the Environment report;

These reports are publicly available at the websites of the Office of Environment and Heritage.

At a national level, Forests NSW contributes to the *State of the Forests Report* and internationally to the Montreal Process. These reports are downloadable from Australian Government Department of Agriculture, Fisheries and Forestry website.

### **Data Management**

Forests NSW developed a social, environmental and economic data storage (SEEDS) system during the 2001-02 reporting period. The system was developed to streamline and integrate the collection and collation of data required for Forests NSW reporting requirements, as outlined above. The system has enhanced data consistency, accuracy in data collation and provides regions with data entry facilities and improved access to all levels of the data.

The system continued to be improved with developments in 2009-10 including:

- Move to SQL 2008 Analysis/Reporting Services
- Implementation on new intranet based data collation tool

## 2. Forest Values and Indicators

### SOCIAL

*Building partnerships and generating economic and social benefits within the community, particularly for rural and regional communities. Developing and valuing staff.*

#### Forest Value – Community benefits

State forests are managed by Forests NSW on behalf of the people of NSW. Regional communities are particular beneficiaries of forestry, mainly through employment and income generation through timber processing and value-adding. Providing secure access for all forest users to pursue and enjoy a range of activities - small business, recreation and education activities - is important to Forests NSW. Managing such a large and geographically widespread resource provides many opportunities to form constructive community partnerships and to build relationships with stakeholders.

#### Indicator 1: Social responsibility

One way Forests NSW tries to improve its performance as a good corporate citizen is through facilitating Volunteer Programs. Forests NSW acknowledge the contribution of community volunteers who donate their time and efforts to assist Forests NSW in undertaking various activities.

This indicator includes the value of sponsorships and donations, but no longer subscriptions. Sponsorships and donations are generally provided to communities, schools, local councils, local Aboriginal Land Councils and other groups.

The indicator includes the number of volunteer programs undertaken.

#### Indicator 2: Public participation

Different communities have different values and expectations on forest management. Community engagement is vital to better understand the range of local and general attitudes in relation to forest management. Forests NSW is committed to involving the public in management decisions about State forests and the landscapes in which they occur. Forests NSW employees regularly organise and attend meetings and community forums related to land and forest management issues.

Forests NSW has in place a *Stakeholder Identification Procedure* which provides the 8 regions with a systematic method for assessing which stakeholder need to be contacted. This procedure provides the basis for identifying stakeholder groups recorded in Regional External Communication Plans.

Last year Forests NSW changed the way external meetings and forums are reported. Instead of reporting the number of meeting and forums Forests NSW now reports the number of staff hours involved in external meetings and forums by subject category. This better demonstrates the commitment to listening to and involving the public and contributing to the decision making process. This year a new system had been introduced to collect hours of staff time involved in external meetings and forums. As staff are able to complete Timesheets without recording the hours spent in external meetings and forums a degree of under reporting is likely. Staff have been reminded of the importance of recording this information.

The indicator reports ministerial correspondence handled and register & official complaints. The inclusion of official complaints reflects improvements in the systems in place to record, track and resolve community complaints directed at Forests NSW.

#### Indicator 3: Recreation and tourism

*Forests NSW Recreation & Tourism Policy 2010-2014* sets the vision, goals and principles to be adopted in the provision of these opportunities and services. All State forests are available to the public for a range of recreational activities. State forests contain an extensive road network, maintained primarily for harvesting operations and fire management. However, this road network means that State forests are also accessible for a range of recreational pursuits. Many activities, such as mountain bike riding, horse riding, camping and four-wheel driving can be undertaken in State forests free of charge and often with greater

flexibility than on other public lands. Organised groups can use State forests under a permit system that allows for public notification and orderly management of events, forest access and safety.

Reporting the number of recreational sites and the number of facilities available at these sites provides a glimpse into the range and extent of amenities provided by Forests NSW. In addition Forests NSW reports the area of forest zoned primarily for recreation and the amount spent on provision of recreational facilities and services.

Greater detail on recreational opportunities in specific State forests is available from the Forests NSW website.

#### **Indicator 4: Research and education**

Many management decisions are influenced by the findings of the Forests NSW program of research and development. In conjunction with the organisation's contribution to education on forest management, Forests NSW takes part in many collaborative research programs with universities and cooperative research centers within Australia and around the world.

The indicator reports expenditure on research and education. It should be noted that some forest management activities have been excluded even though they contain a research component.

The Cumberland Forest Centre at West Pennant Hills in Sydney continues to be the focal point of Forests NSW education program, providing hands on experience for a range of school and community groups in and around Sydney and information for the general public about NSW public forestry. The indicator reports the number of participants attending Forests NSW education program events.

#### **Indicator 5: Regional employment**

Forest management activities are an important source of employment in regional communities in NSW.

In this indicator direct employment refers to employment in traditional forest industries (e.g. forestry and logging and wood and paper products), forest management in government and industry, and other forest contact industries (e.g. eco-tourism and beekeeping).

2008-09 was the last year that regional estimates of numbers employed were collated.

#### **Definitions, assumptions and examples**

- Harvesting/Haulage - includes harvesting and haulage (timber transportation) contractors
- Primary processing - includes processing undertaken at a site where the input is raw material supplied by Forests NSW.
- Apiary - includes employment related bee-keeping sites leased in State forest.
- Grazing - includes that portion of grazing related industry accessing State forest, relates to leases and permits over State forest.
- Eco-tourism - includes employment related to eco-tourism ventures accessing State forest.
- Other - includes plantation establishment contractors, gravel extraction, forest product removal (leaves, seeds, and plants), commercial firewood collectors and other timber harvesting such as sleepers, fencing and landscape materials.

In addition the indicator reports the forest dependant jobs within NSW, based on information published by the Australian Bureau of Statistics derived from the 2006 Census.

#### **Indicator 6: Other forest products**

Forests provide many products and services other than timber that is processed in sawmills. Monitoring the supply and sale of specific products from forests helps us understand the extent to which forests remain an important multiple-use resource, supplying products sought by the community. Products may be for personal use or as part of a commercial enterprise. Forests NSW records most of these other products through a Permits and License System.

## Definitions, assumptions and examples

- Advanced plants sold to the public - Plants, other than seedlings sold through Forests NSW amenities nurseries.
- Bark - for nurseries and landscaping (typically from pine plantation residues)
- Broombush - *Melaleuca uncinata* used for the construction of fences
- Charcoal - for a wide range of uses including in nurseries for orchid production
- Communication sites - transmission towers for mobile phone reception;
- Craft timber - small quantities of specialist and unique timber products for furniture and craft
- Film/documentary - feature films, advertisements and documentaries requiring a natural setting;
- Firewood - collected by individuals and commercial firewood collectors
- Forest maps sold to the public - These include maps sold via the internet
- Gravel/sand/rock - provided through Forests NSW quarries
- Grazing - hectares which have been leased for grazing of sheep and cattle
- Miscellaneous native plants pieces - small quantities of live plants such as ferns, for domestic use
- Nursery seedlings to public - seedlings grown and sold through Forests NSW amenities nurseries. This does not include seedlings grown for Forests NSW plantations
- Other structures - such as dams, water towers etc
- Power lines/cables/pipelines - linear features such as power lines, cables, water and gas pipelines that require access through State forest
- Research - permits issued to research organisations or individuals by Forests NSW for programs undertaken in State forest
- Seed - for nurseries, and re-vegetation programs
- Skimming pools - used in ore smelting
- Wood blocks - for wood turning and craft

The second part of this indicator reports the number of nursery seedlings and cuttings produced, providing insight into the scale of the organisation's planting program.

## Forest Value – Staff

Forests NSW has identified key result areas in the *Corporate Business Strategy 2010-11*. The strategy identified a number of strategic directions relating to staff. The primary focus is safety. In addition Forests NSW commits to the training and development of its people.

### Indicator 7: Quality of management

Forests NSW aims to provide a safe, productive and progressive work environment in each workplace where staff are located. The number of staff directly employed by Forests NSW is used as an indicator of the size of the task of human resources management and the ability to recruit and retain employees. This in turn is a reflection of the quality of management and the way in which working for Forests NSW is valued by its staff.

The indicator reports staff levels by gender and specific sub-groups in line with NSW Government reporting requirements. In addition Forests NSW reports the expenditure on Human Resources.

### Indicator 8: Management and training

Employee skill and competency development is an investment in people and essential to the continued success of Forests NSW and the career growth of employees. The quality of personnel management is reflected in opportunities provided to employees for development and training. This indicator includes Forests NSW expenditure on training.

### Indicator 9: Health and safety

The *Forests NSW Safety Strategy – 'First Priority' 2008-11* is available from the DPI NSW website and documents Forests NSW mission, values and objectives in relation to safety. Progress on meeting these objectives have been reported in the Annual Report for 2010-11.

Forests NSW aims to achieve a safety and rehabilitation record which is the best in the Australasian forestry industry, with a Recordable Incident Rate of one as a specific target.

The Recordable Incident Rate (aka All Frequency Rate) is the lead indicator of safety performance and measures all recordable incidents, including Medical Treatment Only Incidents and Lost Time Incidents. A Medical Treatment Only Incident is any incident that requires medical intervention such as stitches, a prescription or a referral. A Lost Time Incident results in time lost from work of one day/shift or more.

The Lost Time Incident Rate is the measure of more serious recordable injuries, which result in time lost from work of one day/shift or more.

Recordable Incident Rate = 
$$\frac{\text{Total number of Recordable Incidents} \times 200\,000}{\text{Hours worked financial year to date}}$$

Lost Time Incident Rate = 
$$\frac{\text{Number Lost Time Incidents} \times 200\,000}{\text{Hours worked financial year to date}}$$

The use of 200 000 in the formula, means that the resulting rate provides a rough indication of the rate per 100 employees

## Forest Value – Cultural Heritage

Cultural heritage encompasses the qualities and attributes of places that have aesthetic, historic, spiritual, scientific or social value for past, present or future generations. These values may be seen in a place's physical features, but importantly can also be intangible qualities such as people's association with or feelings for a place.

Forests NSW is committed to continuing to improve understanding, appreciation, management and conservation of Aboriginal and non-Aboriginal cultural heritage values in NSW State forests. In particular, Aboriginal cultural places retain special values recognised by Forests NSW. These places may hold additional significance that is defined by the Aboriginal communities themselves.

### Indicator 10: Management of cultural heritage

Cultural heritage values and considerations are assessed with each forest operation undertaken by Forests NSW as part of a thorough planning process. Each year Forests NSW reports on the following:

#### Definitions, assumptions and examples

- Sites recorded in the Aboriginal Heritage Information Management System and Section 170 Register (under the *NSW Heritage Act 1977*) include:
  - Natural features - water-holes, rock shelters, mountain tops
  - Sites of historic importance - contact sites, massacre sites, mission sites, walk-off sites, etc
  - Art and ceremonial sites - rock engravings, art, bora rings, stone arrangements, ceremonial sites, etc
  - Sites associated with tools, artefacts and hunting - quarries, stone artefact scatters, scarred trees, grinding grooves, fish traps, etc
  - Sites associated with traditional Aboriginal life - camp sites, middens, burial grounds, etc
- Area managed for cultural heritage - Forest Management Zone with a Special Value 'Indigenous', land subject to custodianship or land with recognised native title
- Agreements for Co-management of Land - agreement made between Forests NSW and Local Aboriginal Land Councils and community groups to undertake co-management practices that provide mutual benefits
- Gazetted Aboriginal places under section 90 of the *National Parks and Wildlife Act 1974*

#### Cultural heritage training

No changes were reported in relation to cultural heritage management training. All contractors and operational staff have either undertaken cultural heritage training, or in the case of staff, if they have recently joined Forests NSW will undertake the training course at the earliest opportunity.

# ENVIRONMENT

*Ecologically sustainable management of native and planted forests to protect and enhance environmental and conservation values. Expanding the plantation estate to help meet future market needs.*

## Forest Value – Biodiversity

A key objective of sustainable forest management is to maintain or enhance natural levels of biodiversity. The forests of NSW have high biodiversity that must be managed in a way that is mindful of the variety of forest ecosystems and the different ways that these respond to different management practices.

Forests NSW is committed to the management and conservation of the biodiversity in the forests it manages. This commitment includes:

- Maintaining the extent and range of forest types, their distribution and abundance.
- Maintaining a range of all forest structural classes across the landscape including the protection of high conservation value old growth forests, rainforest and rare ecosystems.
- Maintaining the diversity of flora and fauna in forests, with particular attention to threatened species and their habitats.
- Undertaking relevant management practices based on sound research and scientific understanding of ecological characteristics of forest types.
- Undertaking research and monitoring programs to improve understanding of species and ecosystems, ecological processes and ecosystem functions and develop tools for assessment and management.

Many areas of State forest have been recognised as having particular importance for the maintenance of biodiversity values. These areas are protected and managed for these values, which often result in special zoning (Forest Management Zones) and management prescriptions being applied during harvesting or the areas being excluded from harvesting altogether.

Forests NSW has in place a *Forests NSW Forest Management Policy*. The policy recognises that planted and native forests represent a wide range of values and uses to the people of New South Wales. Forests NSW vision is to work to conserve and advance a range of forest values such as biodiversity, forest productivity, and the ability of forests to act as carbon sinks in keeping with ecologically sustainable forest management.

## Indicator 11: Extent of forest type

To properly manage State forests, it is important to know and understand the types of forest ecosystems, their management history and resultant structure of the forests, as well as other environmental factors. Forests NSW employs a range of specialist staff with expertise and training in silviculture (the science of forestry), ecology, botany, hydrology, soil science, geography, conservation and fire management. This knowledge allows us to determine the appropriate management practices that should be applied in different part of the forest estate. Employees also undertake training to ensure their knowledge remains up to date and their skills adequate for forests managed.

To find out more about forests in Australia visit [www.australianforests.org.au](http://www.australianforests.org.au)

## Native forest

The native forest estate managed by Forests NSW comprises over 200 recognised forest ecosystem types, which are organised into broad forest types listed below. Each type has a unique combination of flora, fauna and other characteristics. Monitoring changes in the area and nature of these forests over time helps Forests NSW make decisions about resource utilisation, silviculture, conservation and other issues relating to forest management.

Note that pre-1994 hardwood plantations are generally managed by Native Forests Branch, while Planted Forests Branch have management control over areas of what is primarily native forest (referred to as retained vegetation). This may lead to confusion when interpreting reported area figures for native and planted forests.

**Table 1: Definitions, assumptions and examples for broad forest types**

Broad native forest type	Description
Alpine ash forest	Highland/Tableland Forest types including alpine ash, mountain gum and manna gum
Blackbutt forest	Forest that is dominated by blackbutt with sub-dominant species such as spotted gum, bloodwood, angophora species, sydney blue gum, bangalay, scribbly gum and sydney peppermint
Blue gum forest	Typically moist forest dominated by sydney blue gum and may include bangalay, flooded gum, tallowwood, brush box, dunn's white gum and turpentine
Messmate forest	Forest dominated by messmate or brown barrel often with peppermints and stringybarks as sub-dominant species
Mixed coastal eucalypt forest	A broad forest classification including the grey gum - grey ironbark league, grey box, ironbark and forest red gum
Other inland eucalypt forest types	A very broad forest classification including yellow box, white box, black box, bimble box, western box, various Ironbark species and black cypress pine
Rainforest	All rain forest types including dry and depauperate rainforest, subtropical rainforest, cool temperate rainforest and warm temperate rainforest
River red gum forest	Forest types dominated by river red gum
Snow gum woodland	Forest types dominated by snow gum and may include black sallee candlebark, mountain gum and manna gum as sub-dominant species
Spotted gum forest	Forest dominated by spotted gum often with blackbutt, grey box, bangalay, ironbark, grey gum, sydney blue gum, yellow stringybark or white stringybark
Stringybark forest	Forest dominated by stringybark species (yellow, white, red, blue-leaved, needlebark, silvertop) and may also include silvertop ash, scribbly gum, brittle gum and some box species
White cypress pine forest	Forest dominated by white cypress pine which may also include ironbark, bloodwood, redgum and box forests
Non-eucalypt forest	Includes forests dominated by species such as wattle, swamp oak, river oak, paperbark, mangroves, bull oak and swamp mahogany
Non forest	Areas of cleared land, heath community, broom, mallee, saltbush, swamps, other water bodies, natural grassland, rock, sand, herb or shrub dominated communities
Un-classified	Areas for which the forest type has not been classified and assigned to one of the broad forest types listed above

See the *New South Wales Research Note No.17: Forest Types in New South Wales* for more details. This publication is available through the DPI NSW website.

## Planted forest

The area and percentage of plantation managed by Forests NSW is an indicator of the organisation's commitment to meet both domestic and international markets in wood supply as well as in energy, carbon sequestration and third party investment.

The size of the plantation estate managed by Forests NSW continues to increase. There has been continuing public and private investment in the establishment of new forests for timber as well as other environmental services such as carbon sinks and catchment management. While significant progress was made in gaining commitments to establish plantations in partnership with private investors, this business model has become less attractive as private investment in plantation forestry waned during 2009–10.

### Definitions, assumptions and examples

- Net Stocked Area of hardwood plantation – planted forests of native hardwood species such as blackbutt (*Eucalyptus pilularis*), flooded gum (*Eucalyptus grandis*) and spotted gum (*Corymbia maculata*)
- Net Stocked Area of softwood plantation – planted forests of (typically) exotic softwood species such as radiata pine (*Pinus radiata*) and southern pine but may also include native softwoods such as hoop pine (*Araucaria cunninghamii*) and bunya pine (*Araucaria bidwillii*)
- Retained vegetation and infrastructure – the area of the planted forest estate that has not been planted and which may include native forest types, water sources etc
- Land for future planting – land that has been recently harvested or recently purchased but which has not yet been planted
- Other exclusions – roads, infrastructure etc
- Post–1994 hardwood plantations were established after the commencement of the State Forests Eucalypt Plantation Program in 1994. These plantations are exclusively managed under the *Plantations and Reafforestation Act 1999*.

## Indicator 12: Native forest structure

Forest structure refers to the physical features of a forest which reflect the natural environment and management history of the forest. Largely determined by forest type, age and past disturbance such as timber harvesting and fire, forest structure is an important consideration when planning future management, including harvesting, of forests. The structure of the forest is reflected in the proportion of trees of different age and size over given area.

For comparative analysis and management purposes, three forest structure classes are referred to in eucalyptus forests: regrowth forest, mature forest and high conservation value old growth. The proportion of older trees increases progressively through these categories.

Rainforest is also included because it has high conservation value and may have a proportion of the canopy dominated by eucalyptus species.

Areas identified as high conservation value old growth forest are not available for harvesting or silvicultural improvement. Areas identified as regrowth or mature forest may have specific silvicultural practices applied to enhance their productive capacity. A stable forest landscape requires a balanced range of forest structures in all forest types.

An objective of Forests NSW forest management is to preserve habitat that is critical for the survival of native species in NSW forests, particularly for threatened species. Protection and enhancement of critical fauna habitat requires management for a range of forest types and structure classes across the native forest estate. To protect critical habitat, Forests NSW must ensure that the appropriate mix of forest types and structure classes is maintained across the landscape.

Growth modeling and harvest schedules, along with harvest prescriptions documented within harvest plans ensure that specific areas are harvested at the optimal time, while keeping a range of younger growth stages distributed across the estate within harvested zones and more mature growth stages and rainforest within harvest exclusion area.

### **Definitions, assumptions and examples**

- High conservation value old growth - Eucalyptus forest that, through the Regional Forest Agreement process, has been mapped and agreed as Old Growth (which is forest dominated by trees that are over-mature or senescent (aging) and which are of a forest ecosystem type that is of special conservation importance)
- Rainforest - a type of tropical forest that is dominated by closely spaced trees forming an unbroken canopy
- Mature - Eucalyptus forest that is dominated by trees that are healthy, vigorous, mature trees;
- Regrowth - Eucalyptus forest that is dominated by trees that are young, vigorous and still growing;
- Un-assigned - forest for which structure cannot be determined because they are not Eucalyptus dominated forest ecosystems or for which structural assessment has not been undertaken.

Source: National Forest Inventory [www.daff.gov.au/brs/forest-veg/nfi](http://www.daff.gov.au/brs/forest-veg/nfi)

### **Indicator 13: Flora and fauna**

During the planning phase of forestry operations flora and fauna surveys are undertaken to determine the presence of native species or their preferred habitat.

Forests NSW routinely compiles a list of sightings and recordings of targeted species of fauna and flora on State forests as part of pre-harvest planning or pre-hazard reduction burning. Special wildlife surveys are also carried out for research purposes. Sightings, past or new, trigger species-specific protocols as prescribed in the IFOA that are adopted in harvesting plans.

During the last four years, flora and fauna monitoring has been trialed by scientists from DPI NSW and Forests NSW regional ecologists. These monitoring programs collect data from sites that are evenly distributed across the landscape to provide an unbiased assessment of the condition of the current biodiversity resource in State forests and a platform from which to evaluate changes over time. Western Region has now implemented landscape scale monitoring, while Central and North East Regions are participating in trials. This indicator provides the number of species sighted, the number of sighting, separated into whether they were introduced, native or native and threatened species and the expenditure on ecological surveys. For a list of the currently targeted species see Table 3: List of targeted fauna species in the appendices.

### **Definitions, assumptions and examples**

- Arboreal mammals - Mammals that dwell in trees, such as koalas, gliders, possums;
- Ground mammals - Mammals that dwell on or in the ground such as potoroos, rats, wallabies, bandicoots, wombats and quolls;
- Amphibians - frogs and toadlets;
- bats - bats and flying foxes;
- Raptors - Birds of prey such as owls, hawks, kites and eagles;
- Non raptor birds - Such as robins, whistlers, parrots, doves, cockatoos;
- Reptiles - Lizards and snakes.

### **Flora species**

The number of threatened flora species sighted in surveys was reported, as was the number of sighting, separated into whether they were introduced, native or native and threatened species. Details of targeted flora species along with all licence conditions are found in the IFOA Threatened Species Licences, which are available at [www.environment.nsw.gov.au](http://www.environment.nsw.gov.au). For a list of currently targeted species see Table 4: List of targeted flora species in the appendices.

## **Forest Value – Forest Health**

A healthy and vital forest promotes biodiversity and productivity and also provides a greater range of possible community uses, products and benefits. Controlling populations and the effects of pest animals and weeds, conserving site fertility, reducing the impact of damaging insect and fungal pests and managing fire risks and bushfires are critical components of forest management practices in NSW.

Forests NSW has produced Ecologically Sustainable Forest Management Plans (ESFM) plans for all Regions, which address such essential areas as: fire management, insect and disease management, forest regeneration, feral and introduced predator control, weeds management and forest research projects.

The NSW Primary Industries Forest Biosecurity & Resource Assessment Program has corporate knowledge of the potential damage agents, pests and diseases, of forests. Techniques to detect and accurately measure the extent of disease using remote sensing such as multi-spectral imagery are finding increased application.

Fire is an important component of healthy forests and many Australian forest ecosystems depend on fire for regeneration and renewal. However the frequency of large and intensive fires must be managed and controlled. Bushfire risk and bushfire suppression management plans have been developed in conjunction with local communities and agencies, and hazard reduction and fire suppression programs have been implemented to protect forests, plantations and the nearby community from the effects of severe wildfire (See indicator 16).

### **Indicator 14: Pests and weeds**

Tracking expenditure on programs to control pest animals and weeds is an indicator of the effort made to maintain the health and vitality of forest ecosystems. Information about the extent of control efforts is also presented, particularly where significant outbreaks have occurred or have been controlled as in the case of Myrtle rust during 2010-11. Forests NSW is working closely with other land managers and local landholders to develop effective joint management strategies for the control of wild dogs and foxes.

The number of feral animals and introduced predators removed by licensed hunters from State forests is reported.

#### **Definitions, assumptions and examples**

- Weeds - bathurst burr, blackberry, blue heliotrope, boxthorn, camphor laurel, crofton weed, galvanised burr, giant parramatta grass, golden dodder, gorse, groundsel bush, horehound, lantana, lippia, mother of millions, nodding thistle, pampas grass, patterson's curse, prickly pear, salvinia, scotch broom, serrated tussock, spiny burr grass, St Johns wort, sweet briar, thistle, tiger pear, tree of Heaven, tree pear and willow
- Pests - Possums and wallabies
- Feral Animals - Carp, deer, horses, cattle, goats and rabbits
- Introduced predators - Cats, dogs, foxes and pigs

### **Indicator 15: Plantation affected by insect and disease**

Forests NSW invests significantly in the establishment of new planted forests and replanting of harvested areas. In order to protect these plantations, the NSW Primary Industries Forest Biosecurity & Resource Assessment Program monitors for the presence of threatening biological agents and critical nutrient deficiencies and recommends appropriate control or remedial measures.

The indicator for this forest value is the percentage of planted forest affected by selected agents that are severe enough to potentially cause a deleterious effect on plantation health and vitality. Surveys are undertaken over all or part of the plantation estate. For hardwood plantations surveys focus on that portion of the estate that was established after 1994.

This year the species listed has been amended to reflect recent prevalence of diseases and syndrome.

## **Indicator 16: Fire fighting and fire prevention**

Fire can be either beneficial or detrimental to forest ecosystems depending on a variety of factors. Most eucalypt forests are dependent upon fire for regeneration and renewal but some species, such as river red gum (*Eucalyptus camaldulensis*), are fire-intolerant.

Wildfires occur every year in the forests of NSW. They may threaten life, property and assets. Forests NSW places a high priority on suppressing wildfires and on preventing wildfires from occurring. Planted forests are particularly vulnerable as softwood plantations and to a lesser extent hardwoods are threatened with destruction by severe or frequent fire events. This can result in significant financial losses for Forests NSW as these plantations represent a significant long term financial investment.

Forests NSW aims to reduce the frequency and size of wildfires by early intervention and by undertaking fuel management activities. Regional Fuel Management Plans are developed in conjunction with other fire-fighting agencies and local councils. Strategies are customised for the forest types being managed and the natural and climatic features of the areas in which they are to be implemented.

An inter-agency program coordinated by the NSW Rural Fire Service to undertake hazard reduction burning of targeted areas is planned and implemented in circumstances allowing each year to reduce fuel loads and thus the potential impact of wildfires and make fire suppression safer and more effective. Areas of forest identified as 'high-risk' should wildfire occur are intentionally burnt by low intensity fire of a manageable size, under controlled conditions.

Small scale, localised burning is often undertaken after timber harvesting to promote regeneration or during the establishment of planted forests to remove residual groundcover.

Grazing is also effective for managing fuel loads because it reduces the amount of fine fuel in forests without using fire. Grazing is particularly suited to forests with fire-intolerant species such as river red gum (*Eucalyptus camaldulensis*) and cypress pine (*Callitris glaucophylla*). Forests NSW has management plans in place to address specific fire reduction issues relating to these species

Forests NSW accesses a lightning strike detection system and numerous fire towers to detect fire outbreaks. The organisation has also built up an extensive network of road and fire trails to rapidly gain access to fires. Significant training is also undertaken annually to make sure that all employees who are involved in fire suppression and management have the relevant skills to be safe and effective.

This indicator reported the per cent of forest estate subject to wildfire, the area of prescribed burns, the expenditure on fire management and the area subject to grazing, a recognized fire hazard reduction technique.

## **Forest Value – Soil and Water**

Forests play an essential role in the protection and maintenance of soil and water resources. Conservation of soil and water contributes to the catchment health and biodiversity values of the landscape.

Through Forest Practices Codes, operational manuals and guidelines, Forests NSW is committed to using world's best practice to ensure that soil and water quality are not adversely impacted by roading and timber harvesting operations. Forests NSW forest management also aims to maintain the soils in State forests to support natural forest ecosystems and ecosystem processes.

Effective implementation of soil and water protection is further assisted through the regulatory conditions prescribed in Environment Protection Licences, issued by the Environment Protection Authority (EPA within Department of Environment, Climate Change and Water NSW). The EPA monitors the implementation of licence conditions.

Forests NSW undertakes a program of quality sampling and long term monitoring of water flow from State forests that play a vital role in water catchment management.

## **Indicator 17: Protection of soil and water**

Prior to the establishment of any roads in forests that are scheduled for timber harvesting, a soil survey is undertaken, by an accredited officer, to identify areas that may be susceptible to soil erosion. These

surveys represent a systematic assessment for soil erosion hazard and help determine which water pollution prevention measures are put in place before harvesting commences.

The entire Forests NSW estate is managed for catchment protection. However this indicator reports on the area of land that is zoned 'catchment' as the primary special value in the Forests NSW Forest Management Zoning system (ie has a special emphasis for catchment protection). It also includes the current estimate of the extent of stream-side reserves and extreme soil erosion hazard land that is protected within the 'general management' native forest zone and the current estimate of the extent of filter strips in planted forest.

The indicator does not include land that has been primarily zoned for other ecological purposes, but for which catchment protection is also an important objective. Consequently, Informal Reserves that are managed primarily for flora or fauna are not included in this indicator.

### **Definitions, assumptions and examples**

- Fully protected land - includes wetlands, filter strips reserved from harvesting and areas with extreme risk of erosion or water pollution hazard;
- Partly protected land - Includes Forest Management Zone 3b, special value "Catchment" and filter strips protected in areas where modified harvesting methods are permitted.

### **Forest Value – Compliance**

All harvesting operations conducted by Forests NSW are subject to various regulatory regimes. In the native forests of eastern NSW, the regulatory regime is explicitly documented in legislation and detailed in such documents as the Integrated Forest Operations Approvals (IFOA) under the NSW Forest Agreements and the Regional Forest Agreements with the Commonwealth. In other parts of the state harvesting is undertaken in accordance with conditions agreed between Forests NSW and other government agencies and internal Codes of Practice.

The plantation areas are covered by a comprehensive Code of Practice under the *Plantations and Reafforestation Act 1999*. This Code specifies the conditions associated with soil and water management to be implemented for all planted forests operations. Although planted forests do not have flora, fauna and cultural heritage issues to the same extent as the native forests, the code addresses management actions in cases where protection of these attributes are required.

During harvest planning and licensed harvesting operations, Forests NSW and external harvesting contractors are required to comply with conditions set out in this Code or under the IFOAs and established best practice standards. To ensure that these requirements are met, Forests NSW supervises, checks and audits the work of contractors and is, in turn, subject to audit and inspection by the independent regulatory agencies and EMS & AFS Certifiers.

All native State forests subject to harvesting by Forests NSW are regulated under IFOAs. These IFOAs reflect the policy of the NSW Government to promote an ecologically sustainable, value added and secure native forest timber industry while establishing clear, consistent and strong environmental protections for areas available for timber harvesting.

### **Indicator 18: Regulatory compliance**

The number of audits undertaken and the number of fines and breaches reported are used to monitor compliance with both Codes of Practice and external license conditions. Forests NSW undertakes routine monitoring for compliance and orders corrective action by contractors where necessary. These are registered and tracked through the Non-Conformance and Improvement System

The number of compliance check sheets completed by Forests NSW staff is proportional to the number of harvesting operations during the year, and also depends on the type and duration of each harvesting operation as a battery of checks is undertaken every two weeks of each operation.

### **Forest Value – Environmental services**

Environmental services is a term given to the benefits generated for society by the existence and dynamic development of natural resources, in this case with a particular focus on forests.

Forests are key ecosystems for the planet's long term sustainability. They produce oxygen and remove CO<sub>2</sub> from the atmosphere. They regulate the surface and underground flow of water. They smooth out peaks and troughs in water availability and provide very effective filtration systems for higher water quality. They support a wide range of native flora and fauna species. And they provide many valuable goods and services, ranging from timber rights through to the satisfaction knowing that they simply exist.

Regrettably, many of the services or benefits provided by forests were either not recognised or were accorded little value. As a consequence, the true value of these services only became widely recognised when the services themselves were lost through historical removal of the forest. Examples include soil erosion, loss of nutrients, floods, poor quality water, salinity, flora and fauna extinction, climate change and low resilience to stress in resulting farming systems.

Planted forests have the potential to act as carbon sinks to absorb some of the greenhouse gases that have been building up in the atmosphere, particularly over the last century, as a consequence of land clearing and burning fossil fuels. Timber products also store carbon, which would otherwise be released back into the atmosphere as dead and dying trees decompose or through wildfires.

During 2007-08 Australia became a signatory to the Kyoto Protocol, which aims to address carbon emissions. Forests NSW continues to register and trade carbon credits created by accredited entities under the NSW Greenhouse Gas Reduction Scheme. In fact in 2005 Forests NSW became the first in the world to trade forest-based carbon credits within a registered carbon trading scheme.

These are important steps towards recognising forests role in climate change mitigation.

### **Indicator 19: Carbon sequestration**

This indicator expresses the total annual carbon sequestration within existing planted and native forests. The calculations are affected by changes in the net stocked area, assume estate-wide mean annual increments (growth rates) for softwood and hardwood plantations and assume region wide mean annual increments, based on native forest valuation data supplied to the NSW Auditor General's Office.

The carbon accounting models used to estimate the total sequestered CO<sub>2</sub>-e each year over the last few years from the total planted forest estate is a very simplified one. The calculation is based on the net area of plantation (ie after any final harvesting). This method may change again as the models are further refined to include, for example, carbon sequestered in the undergrowth, litter and soil (which have been excluded from this calculation).

A more comprehensive carbon accounting system is used for the subset of the total plantation estate that is consistent with Article 3.3 of the Kyoto Protocol. This refined system underpins the number of certificate creates under the NSW Greenhouse Gas Abatement Scheme.

The assumptions used to report on carbon sequestration in native forests are the best available to date. The models used report the amount of carbon stored in forest products, along with emissions associated with harvesting and forest fire emissions.

In the 2010-11 annual report a carbon life-cycle assessment provides a useful comparison between sustainably harvested forests and unharvested reserves.

### **Definitions, assumptions and examples**

The quantum of atmospheric carbon sequestered in Forests NSW forests is determined using the formula published in the Forests NSW Annual Report 2010-11, which has been developed by Forests NSW through work undertaken with the CRC for Greenhouse accounting.

### **Indicator 20a: Energy consumption**

As an organisation Forests NSW is committed to reducing its contribution to atmospheric carbon during the process of managing and harvesting forests.

This indicator has been improved through inclusion of bulk purchased fuel, which had previous been unreported. This explains increases in diesel and petrol fuel reported in 2009-10. The 2008-09 figures were not revised due to difficulties in obtaining bulk fuel purchased figures for previous years.

Forests NSW also reports harvest and haulage contractor fuel consumption as part of reporting commitments under the *National Greenhouse and Energy Reporting Act 2007*.

### **Indicator 20b: Fleet**

Forests NSW ongoing commitment is to ensure a safe, reliable and practical motor vehicle fleet that further demonstrates the organisations economic and environmental management disciplines.

The NSW Government's Cleaner Vehicles and Fuels Strategy, has as one of its key initiatives an improvement in the environmental performance of the NSW Government vehicle fleet. This initiative will encourage the procurement of smaller, cleaner and less polluting vehicles, reduce fuel consumption and greenhouse emissions and save both on vehicle purchase and running costs. Forests NSW supports these broad energy and environmental principles and will contribute to such outcomes by pursuing sound motor vehicle choices.

This indicator reports the number of fleet owned by Forests NSW in three categories by fuel type:

- Light vehicles (e.g. sedans, wagons, utes)
- Trucks and light plant NSW (e.g. trucks, tankers)
- Heavy plant (e.g. dozers, graders)

### **Indicator 21: Material consumption and recycling**

Forests NSW participates in the NSW *Waste Avoidance and Resource Recovery Strategy 2007*. This strategy contains targets and proposes priority areas and actions to guide the work of all key groups in NSW in contributing to the minimisation of environmental harm from waste disposal and the conservation and efficient use of Forests NSW resources.

Further details on policy are contained within the *NSW Government Sustainability Policy*.

The State-wide target contained in the *NSW Government Sustainability Policy* to reduce total potable water consumption by 15% by 2010-11 (from 2005-06 levels). While the 2005-06 water usage figures were not collated, Forests NSW is confident that this target will be met, thanks to more recent records and improvements in water efficiency in the production nursery process, particularly at the Blowering Nursery.

Since 2009-10 Forests NSW water usage has been collected for each of the facilities operated by Forests NSW.

## **ECONOMIC**

*Ensuring an adequate return from the marketing of wood products from the State's native forests and plantations, while also developing innovative commercial products and services to facilitate private investment in new planted forests.*

### **Forest Value – Marketing and Sales**

The marketing and sale of timber is included as a forest value in recognition of its importance to the organisation and the community. The steps involved in the timber production life cycle are harvest planning; harvesting operations; processing into end product at the mills; monitoring of regeneration; growth for future harvest; and then working toward a repetition of this cycle.

Timber is harvested from trees that either grow in native forest areas or plantations. Inventories and modeling of how much and what type of trees are in the forest now and in the future is undertaken by Forests NSW. A report on Forests NSW yield estimates for native regions is available from [www.forests.nsw.gov.au](http://www.forests.nsw.gov.au)

Once the timber has been harvested, it is transported to mills for further processing. Most timber goes to sawmills which produce various sawn timber products such as house framing, fencing, floorboards, decking and furniture. Some logs are processed into round timber such as telegraph poles and treated posts or into veneer for plywood. Sawmill residue and pulpwood logs are used for pulp and paper and reconstituted timber products (e.g. particle board, medium density fibre-board (MDF)).

### **Indicator 22: Volume of timber harvested**

Change in the volumes of logs and other products harvested reflects both the market fluctuations in the building industry and more importantly demand for different timber products. Trends in timber supply volumes and the mix of harvested products is of interest to many of Forests NSW key stakeholders and therefore the data is reported here.

### **Indicator 23: Sawlog product mix of timber harvested**

Market demand for sawn timber contributes significantly to the type and volume of timber that is removed from different forest types. As market demand for sawn products changes so does the type, volume and quality of timber removed from forests.

Since 2008–09 the market survey has been outsourced to URS Forestry and this component of the survey is no longer available.

### **Indicator 24: Carbon accounting compliant with NSW Greenhouse Gas Reduction Scheme**

The NSW Greenhouse Gas Reduction Scheme (GGAS) commenced on 1 January 2003. It is one of the first mandatory greenhouse gas emissions trading schemes in the world. GGAS aims to reduce greenhouse gas emissions associated with the production and use of electricity.

Each certificate accredited represents one tonne of CO<sub>2</sub> removed from the atmosphere.

Forests NSW is seeking smooth and equitable transition arrangements for abatement certificate providers operating under the NSW Greenhouse Gas Abatement Scheme. The NSW Greenhouse Gas Abatement Scheme continues to provide a framework for the sale of carbon credits in the absence of a national scheme.

# SUSTAINABILITY

Managing State forests for the long-term and retaining opportunities for future generations to meet their needs and expectations, while providing for the present.

## Forest Value – Productivity

One of Forests NSW main forest management objectives is to ensure forest practices, including timber harvesting, are undertaken in a manner which provides for a perpetual supply of forest products in line with community expectations and to ensure all disturbed native forests are properly regenerated.

Managing forests is a long-term process. The impact of decisions and actions in forest management today may not be readily visible in the forest for many decades. New management practices need to be researched over long time and practices implemented often take many years before they have an effect on forest growth and productivity. Monitoring and maintaining the forest's productive capacity is critical to the continued ability to provide, in perpetuity, the range of products and services demanded by society.

## Indicator 25: Forest management

Within the estate managed by Forests NSW, an important sustainability indicator is the proportion of the forest estate that has a special management focus on conservation and how much of the forest has a management focus on timber production, subject to IFOA prescriptions to protect other forest values. The area available for timber production is a major determinant of the sustainable supply of raw timber products to the timber processing industry.

### Definitions, assumptions and examples

The forest estate is classified according to management intent. Known as Forest Management Zones (FMZ) each area is managed according to a range of primary values, which also determine whether the forest will be made available for harvesting.

**FMZ 1:** Dedicated Reserve/Special Protection - Management to maximise protection of very high natural and cultural conservation values. Not available for timber harvesting;

**FMZ 2:** Informal Reserve (Special Management) - Specific management and protection of natural and cultural conservation values where it is not possible or practical to include them in zone 1. Not available for timber harvesting;

**FMZ 3a:** Informal Reserve (Harvest Exclusion) - Management for conservation of identified values and/or ecosystems and their natural processes. Areas where harvesting is excluded but other management and productions activities not permitted in zone 1 or 2 may be appropriate (e.g. grazing or mineral exploration);

**FMZ 3b:** Special Prescription - Management for conservation of identified values and/or ecosystems and their natural processes. The zone is available for timber harvesting but minimised in design and implementation to maintain or enhance the values that the area is zoned to protect;

**FMZ 4:** General Management Native Forest - Management of native forests for timber production utilising the full range of silvicultural options as appropriate; and conservation of broad area habitat and environmental values which are not dependent on the structure of the forest. Available for timber harvesting;

**FMZ 5:** Hardwood planted forest estate - Management of hardwood plantations to maximise sustainable timber production on a continuing cyclical basis;

**FMZ 6:** Softwood planted forest estate - Management of softwood plantations to maximise sustainable timber production on a continuing cyclical basis;

**FMZ 7:** Non forestry use - Management of cleared (non-forested) areas, such as those used for special developments such as infrastructure;

**FMZ 8:** Land for further assessment - An interim zoning of areas where field investigation is required to determine final Forest Management Zone classification. Field investigation will be undertaken as part of pre-harvest planning. Management will be for protection under the same requirements as zone 3a until field investigation has taken place.

Forest Management Zoning may be determined over areas such as Western Lands Leases prior to timber harvesting, however the indicator as report is restricted to State forests area. For more information of see the *Managing Our Forests Sustainably Forest Management Zoning in NSW State Forests* publication.

### **Indicator 26: Plantation establishment and survival**

This indicator tracks the area of new ("afforestation") plantation and harvested and replanted ("reforestation") plantations established during the year. New planted forests are only established on land that was cleared in the past for agricultural purposes that is either purchased by Forests NSW or by contractual arrangements with private land owners or forest investment intermediaries. Forests NSW does not clear land of native vegetation for the purpose of establishing plantations.

The establishment of new planted forest and re-establishment of existing planted forest after final harvesting contributes to the development of a sustainable timber supply in NSW. The final productivity of a newly planted forest largely depends on achieving vigorous growth in the first few years. Forests NSW monitors the effectiveness of the establishment of newly planted forest by undertaking surveys of seedling survival in the first year after planting. If survival rates are generally low or low in specific locations, the failed areas are replanted.

Survival surveys are undertaken annually (on a calendar year basis) one year after planting.

Cost of establishment is defined in the Indicator 26 and includes those works associated with establishment, but does not include tending of established plantations.

This indicator included areas of planted forests harvested by species and silvicultural treatment. The figure highlight the significance of thinning in ensuring quality logs are produced.

### **Indicator 27: Mean annual growth in plantations**

High productivity in NSW planted forests is essential to achieving long term supplementation of timber from NSW native re-growth forests. Monitoring the mean annual volume change in planted forests indicates whether measures are required to improve productivity through additional attention to forest health, maintenance of soil fertility, improvement in genetic stock and/or improvement in silvicultural practices.

#### **Definitions, assumptions and examples**

- Annual Increment - The change in volume of the Net Stocked Area (NSA) of plantation in one year;
- Net Stocked Area (NSA) - The area of the estate where trees are planted (ie does not include roads, environmental exclusion areas, area awaiting regeneration, etc) as at the end of the financial year;
- Mean Annual Increment (MAI) - An indication of the productive potential of an average hectare within the estate. The MAI is derived for a species, for example radiate pine, or for a management area, for example Central region. The silvicultural and harvesting regimes adopted can influence this figure considerably.

This year Indicator 27 also reported the NSA of the major plantation species by per cent of each age-class group, illustrating the even distribution of softwood age-classes within the Forests NSW forest estate.

The standing volume reported confirms the significant of *Pinus radiata* within the Forests NSW forest estate and the maturity of the *Pinus radiata* forest estate, with a fairly even proportion within each age-class.

## **Indicator 28: Native forest regeneration**

This indicator monitors the maintenance of the productive capacity of native State forests through regeneration. Regeneration of native forests after harvesting is the source of future forests and the key to maintaining future timber supplies as well as other ecological values within forest ecosystems. The nature of eucalypt and cypress pine forests allows for the natural regeneration of seedlings following a logging operation. In adverse conditions, restocking is undertaken by Forests NSW to ensure adequate regeneration occurs.

The indicator provides insight into the silvicultural systems applied to native forest harvesting, along with expenditure on silviculture and inventory.

## **Forest Value – Maintainability**

### **Indicator 29: Sustainable yield**

The volume of high quality veneer logs and sawlogs that can be harvested each year is set at a sustainable level to maintain productive forest ecosystems in the long term. For native forests in eastern NSW, this level has been established through the Regional Forest Agreement process and is reflected in timber supply agreements with industry. Elsewhere, the level of production in native forests is based on forest type, yield history and the advice of Forests NSW operational, resources, marketing and research. Harvesting in plantations is measured against commitments to industry.

The harvesting of lower quality logs and other wood products is integrated with the harvesting of high quality logs. In the longer term it is important that the level of actual harvest does not exceed the scientifically assessed sustainable level of production.

A state wide table taken from a report on Forests NSW yield estimates for native regions (available from [www.forests.nsw.gov.au](http://www.forests.nsw.gov.au)) was reproduced in the Annual Report and shows harvestable volumes over the reported period of 100 years into the future.

### **Indicator 30: Forest Certification**

In December 2006 Forests NSW was certified as compliant with the Australian Forestry Standard (AS 4708: 2007) by an external auditor accredited by JAS-ANZ to audit against this internationally recognised forest management standard.

The standard is based on criteria for sustainable forest management agreed on by the PEFC Council (*Programme for the Endorsement of Forest Certification schemes*), which is an independent, non-profit, non-governmental organisation, that promotes sustainably managed forests through independent third party certification. PEFC is a global umbrella organisation for the assessment of and mutual recognition of national forest certification schemes, such as the Australian Forestry Standard.

Forests NSW was certified to the Environmental Management System ISO 14001:2004 earlier in 2006. ISO 14001:2004 meets the criteria and requirements of one of the nine Australian Forestry Standard criteria. Maintaining ISO 14001:2004 is not required for Australian Forestry Standard certification, instead ISO 14001:2004 certification has been maintained as a matter of good business practice.

### **Indicator 31: Trading Profit**

The trading profit of the Forests NSW reflects the efficiencies of the organisation in undertaking its primary function of providing a commercial and sustainable supply of timber to NSW. As a commercial as well as public agency, Forests NSW also looks to other markets to ensure the best value is derived from the State forests prime product timber.

### **3. Governance**

Forests NSW is the public trading enterprise within Trade & Investment New South Wales (T&I NSW).

The Honorable Katrina Hodgkinson is the Minister responsible for the Primary industries portfolio as at the 30 June 2010 .The Department of Primary Industries was headed by the Director General and Commissioner for Forests, Richard Sheldrake.

#### **Industry & Investment NSW Corporate Plan 2010–2013**

The *Industry & Investment NSW Corporate Plan 2010–2013* sets the strategic foundation for moving the department forward. It provides the framework for the department's work at all levels.

As NSW's leading economic development agency, Trade & Investment NSW plays a central role in achieving the government's commitment to creating economic development opportunities and boosting productivity, competitiveness and sustainability across NSW.

The Corporate Plan sets the strategic direction for Trade & Investment NSW and articulates the vision and values, defines the department's strategic priorities and goals through key result areas, identifies intended outcomes and lists the practical strategies that will be undertaken to deliver these results.

#### **The structure of trade & Investment NSW**

NSW Department of Trade and Investment, Regional Infrastructure and Services (NSW Trade & Investment) was formed in April 2011 and is designed to focus and strengthen NSW government services to provide maximum benefit to the state and to provide a strong customer service culture in all areas of service delivery.

The key functional areas included in NSW Trade & Investment are:

- agriculture
- arts
- biofuels
- biosecurity
- catchment management
- crown lands management
- energy
- fisheries
- food regulation and safety
- food security and agricultural sustainability
- forests
- international markets and trade
- investment attraction
- liquor, gaming and racing
- major events
- marine parks
- mineral resources
- regional development
- rural affairs and rural service delivery
- rural assistance
- small business
- soil conservation services
- state development
- tourism
- water management

The Department of Primary Industries (DPI), of which Forests NSW is a part, is itself part of the wider NSW Department of Trade and Investment, Regional Infrastructure and Services. The CEO of Forests NSW, Nick Roberts sits on the DPI NSW Board of Management as Deputy Director General.

## **Forests NSW Corporate Business Strategy**

Forests NSW continues to be guided by a *Corporate Business Strategy (2010-11)*, which identifies the strategic business directions for the coming years. These are:

### **Our strategic directions**

#### **1. FOCUS**

Our focus is on excellence in profitable and sustainable forest management including:

- Safety
- Profitability and cash flow
- Environmental sustainability
- Customer service and customer satisfaction
- Inventory and resource modelling
- Innovation, technical capability and operational efficiency
- Risk management and protection of assets
- Logistics and contractor management

#### **2. ORGANISATIONAL EFFICIENCY**

We are committed to making optimal use of our human and organisational assets through:

- Training and developing our people
- Enhancing leadership and management skills across the organisation
- Developing our planning and execution capabilities
- Clearly defined roles and expectations
- Performance management and benchmarking
- Critical review, selection and prioritisation of activities and ventures we undertake
- Tools and systems that deliver results

#### **3. REVENUE GROWTH**

We will increase revenue by focusing on:

- Market pricing
- Value recovery and increasing long term value
- New business and product diversity
- Development of a harvesting residue market (bio-fuel)
- Capturing the value of Carbon markets

#### **4. COST REDUCTION**

We will reduce costs through:

- Continued re-evaluation of our business and operational practices
- Planning and process improvement
- Benchmarking and adoption of best practice
- Reduction in overheads
- Better procurement and engagement with contractors

#### **5. SIMPLIFICATION**

We will simplify the way we work including:

- Management systems
- Organisational structure and functions

- Sales and pricing
- Regulation and compliance

## **Forests NSW corporate structure**

To deliver on this Forests NSW structure is along five operational lines:

- Financial and Operational Business Services
- DTIRIS People, Learning & Culture
- Land Management and Forestry Services
- Native Forests
- Planted Forests

Within each branch there are number of units and programs designed to address a particular aspect of Forests NSW business and operational activities. Each branch is lead by a director, who also sits on the Senior Management Team for Forests NSW.

The director of DTIRIS NSW People, Learning & Culture reports to the DTIRIS NSW executive director of DTIRIS NSW Finance, Strategies & Operations, while also a member of the Forests NSW Senior Management Team.

## 4. Legislative and policy context

Forests NSW and State forests are administered in accordance with the *Forestry Act 1916* and its regulations. Forest NSW develops and implements a range of policies as guided by the objects of this legislation, in accordance with the principles of ecologically sustainable forest management.

Within this policy context Forests NSW determines management of the areas under its control, with innovative approaches to forest management, silviculture, biodiversity conservation and other values. The decision making process is also influenced by a regulatory regime, which provides a number of the parameters to be accommodated in management.

The regulatory regime under which Forests NSW operates is in accordance with a number of Acts and regulations including:

- *Forestry Act 1916,*
- *Environmental Planning and Assessment Act 1979;*
- *National Parks and Wildlife Act 1974;*
- *Protection of the Environment Administration Act 1991;*
- *Protection of the Environment Operations Act 1997;*
- *Fisheries Management Act 1994;*
- *Plantations and Reafforestation Act 1999;*
- *Timber Marketing Act 1977,*
- *Threatened Species Conservation Act 1994;*
- *Native Vegetation Act 2003*
- *National Parks and Forestry Estate Act 1998*
- *Brigalow and Nandewar Community Conservation Area Act 2005;*
- *National Park Estate (Riverina Red Gum Reservations) Act 2010*
- *National Park Estate (South western cypress Reservations) Act 2010*

How these are implemented varies for different regions and forests.

### 4.1. Regional Forest Agreements

For many State forests, particularly on the east coast, assessments were conducted as part of the State-Commonwealth Regional Forest Agreement (RFA) process around 1998–2001. RFAs are one of the principle means of implementing the *National Forest Policy Statement* of 1992 under which the Commonwealth and all State and Territory Governments agreed to work towards a shared vision for Australia's forests. NSW RFAs are agreements between the Commonwealth and the NSW Governments on the future use and management of the State's coastal native forests. A RFA is a 20-year agreement with three main objectives:

- to protect environmental values in a world class Comprehensive, Adequate and Representative (CAR) Reserve system of dedicated and informal reserves and areas protected by prescription;
- to encourage development of an internationally competitive timber industry;
- to manage native forests in an ecologically sustainable way.

They are the result of years of scientific study, consultation and negotiation covering a diverse range of interests. RFAs are in place for Eden, North East (Upper North East and Lower North East) and Southern (South Coast and Tumut) NSW. Copies of NSW RFAs can be downloaded from this web page: [www.daff.gov.au](http://www.daff.gov.au)

In March 2010, the final report of the independent assessor for the first five-year review of the three NSW RFAs was tabled in the House of Representatives. The report made 18 recommendations for improvements to the implementation of the RFAs.

The *Forestry and National Parks Estate Act 1998* formalised the identified conservation reserves through the transfer of certain State forest and other Crown land to the national park estate. The Act also provides for the making of NSW Forest Agreements.

A NSW Forest Agreement process is the means by which NSW implements the obligations and undertakings arising from an RFA for coastal regions. NSW Forest Agreements contain provisions that promote ecologically sustainable forest management, sustainable timber supply, community consultation on forestry operations and arrangements concerning native title rights and interests or land claims, as well as other provisions the Ministers consider appropriate. Forest agreements establish a co-operative framework at a strategic, rather than operational, level for the management of forested areas across all tenures, including national parks.

Forest Agreements were prepared for all regions now covered by a RFA. These agreements were signed by the Ministers administering the *Environmental Planning and Assessment Act 1979*, the *Forestry Act 1916*, the *National Parks and Wildlife Act 1974*, the *Protection of the Environment Administration Act 1991* and the *Fisheries Management Act 1994*.

## 4.2. Forest Assessments

In May 2005 the NSW Government announced the outcomes from the Western Regional Assessments (WRAs) for the Brigalow and Nandewar Bioregions in May 2005, covering Forests NSW's Western Region. Unlike the RFAs, the Commonwealth Government was not involved in this assessment. An entirely new land tenure for public lands in NSW was created as part of this decision, by creating a community conservation area which will provide for conservation outcomes, sustainable timber, minerals and other industries and is underpinned by strong community involvement. The *Brigalow and Nandewar Community Conservation Area Act 2005* provides the legislative basis for this tenure.

On 1 July 2010, the *National Park Estate (Riverina Red Gum Reservations) Act 2010* came into effect, transferring more than 100,000 hectares of river red gum State forests to other tenures in the Riverina. The Act allows timber harvesting to continue in the Koondrook, Campbell's Island and Perricoota State Forests and in parts of the Western Land Leases, under an Integrated Forestry Operations Approval (IFOA).

On 1 January 2011, the *National Park Estate (South western cypress Reservations) Act 2010* came into effect, transferring a further 47,000 hectares of State forests to parks under management of the Parks and Wildlife Group within the NSW Office of Environment and Heritage. Timber harvesting will continue in the remaining State Forests and Western Land Leases, under an Integrated Forestry Operations Approval (IFOA).

## 4.3. Plantations

Forests NSW plantations are regulated by the *Plantations and Reafforestation Act 1999* and its Regulations (Code of Practice). This Act and Code are administered by the NSW Department of Primary Industries. They aim to promote and encourage the establishment of plantations by both the public and private sectors and provide a uniform "one stop shop" regulatory environment for both sectors across the whole of New South Wales. The Act also provides for the development of equitable arrangements for road funding to service the needs of the plantation timber processing industry.

## 4.4. Forests NSW policies and codes of practice

A suite of Forests NSW policies has been implemented to help guide sustainable forest management practices. While not explicit in their stated objectives several policies seek outcomes that contribute to sustainable forest management.

These include:

- Compensation for Loss or Damage of Personal Property of Forests NSW Employees & Volunteers
- External Maintenance Approval Policy

- Fire Management Policy
- Fleet Insurance Policy and Procedures
- Fleet Maintenance and Modification Policy
- Fleet Use and Care Policy
- Forest Management Policy
- Light Fleet Replacement & Ordering Policy
- Recreation & Tourism Policy 2010-2014
- FNSW Scholarship Policy
- FNSW Study Assistance Policy
- Training and Development Policy
- Forest Operator and Contractor Licenses
- Forest Roads, Legal Access for Private Use (Right-of-way or easement)
- Health & Safety Policy
- Individual Loads – Mass and Load Height Management of Log Trucks
- Light Fleet Selection and Accessorisation Policy
- Managing our Forests Sustainably: Forest Management Zoning in NSW State forests
- Purchase of Good and Services
- Residual Forest Biomass Policy
- Salary Package Motor Vehicle Accessories
- Salary Packaged Vehicle Replacement & Insurance Excess Policy
- Sponsorship Guidelines
- Tendering
- Volunteer Policy
- Work Experience Policy

Note: Forests NSW Policies are under constant review and may vary as Government policy or circumstances dictate.

Forest NSW has developed a number of *Forest Practice Codes* to identify non site specific terms and conditions for forestry activities that have the potential to impact on environmental values. These include codes for:

- Timber harvesting in Forests NSW plantations;
- Timber harvesting in native forests;
- Plantation establishment and maintenance; and
- Forest roads and fire trails.

## 5. Appendices

**Table 2: Major customers and associated products and services**

Area	Major species	Customer	Products/Services
Plywood	Softwood/Hardwood	Big River Group	Plywood
Major sawmillers	Hardwood	Australian Solar Timbers, Big River Timbers, Blue Ridge Hardwoods, Boral Timber, Coffs Harbour Hardwoods, Davis & Herbert, Grants Holdings, Gunnedah Timbers/Baradine Sawmilling, Hurfords Building Supplies, Koppers, J Notaras & Sons, Thora Sawmilling, Newells Creek Sawmilling and SA Relf & Sons	Structural timber; flooring, furniture and joinery timber; plywood products
	Softwood	Carter Holt Harvey, Highland Pine Products, Hyne & Son, Tarmac, Dongwha, Allied Timber Products	Structural timber
MDF and particleboard	Softwood	Borg Panels, Carter Holt Harvey	Panel products
Woodchip and log export	Softwood/Hardwood	Boral Timber Fibre Exports, Pentarch, South East Fibre Exports	International fibre markets
Pulp and paper	Softwood/Hardwood	Norske Skog, Visy Pulp and Paper	Newsprint, cardboard
Investors	na	Agriwealth, Maslen Plantation Management and ST Microelectronics	Plantation investment
Utilities and infrastructure	na	Country Energy, Crown Castle, Optus, Telstra and Vodafone	Telecommunications and electricity supplier

**Table 3: Categories of training reported in 2010-11**

Training category	Definition
Assessors	Nationally accredited assessor courses relating to core business
Authorised officer	Training to enable staff to undertake audit & enforcement activities in State forests under the <i>forestry Act 1926</i>
Business skills	General business skill courses
Computer skills	All courses relating to computer use skills
Contractors	Increases awareness of the elements needed to ensure contractor safety in the workplace
Environmental & cultural	Environmental systems and management practices that ensure awareness of and compliance to National and International environmental standards and Codes of Practice
Fire medical and fitness	Monitors the health, fitness and physical preparedness of forestry staff to deal with fire emergencies

Fire resource protection	Ensures the competence all FNSW staff who engage in firefighting activities
Forest management	Ensures the implementation of safe codes of practice in relation to FNSW operations and community use of FNSW land
Health & safety awareness	Courses that raise awareness about health and safety issues in the workplace
Health & safety compliance	Courses required to meet legislative and compliance requirements
Management and leadership	Management and leadership program courses
Plant & animal management	Management strategies to identify, protect and control plants and animals on FNSW properties
Plant skills	Courses relating to the operation of plant equipment
Plantation establishment	Courses relating to the establishment of plantations
Safe driving & licensing	Courses that heighten driving skills or track RTA Licencing requirements
Silviculture and tree growth	Courses relating to silviculture and tree growth issues.
Technical Skills	Courses that relate to the use of hand held equipment such as chain saws
Tertiary and trade certificates	All tertiary TAFE and trade certificates
Workshops	Mechanical, vehicle, diagnostic and inspection skill courses for workshop staff

**Table 4: List of targeted fauna species**

Common name	Botanical name	Status under the NSW Threatened Species Conservation Act 1995
<b>Arboreal mammals</b>		
Brush-tailed phascogale	<i>Phascogale tapoatafa</i>	Vulnerable
Eastern pygmy-possum	<i>Cercartetus nanus</i>	Vulnerable
Greater glider	<i>Petauroides volans</i>	Endangered population
Koala	<i>Phascolarctos cinereus</i>	Vulnerable
Squirrel glider	<i>Petaurus norfolcensis</i>	Vulnerable
Yellow-bellied glider	<i>Petaurus australis</i>	Vulnerable
Yellow-bellied Glider (Bago plateau)	<i>Petaurus australis</i>	Endangered population
<b>Ground mammals</b>		
Black striped wallaby	<i>Macropus dorsalis</i>	Endangered
Broad-toothed rat	<i>Mastacomys fuscus</i>	Vulnerable
Brush-tailed rock-wallaby	<i>Petrogale penicillata</i>	Endangered
Dusky Hopping-mouse	<i>Notomys fuscus</i>	Endangered
Eastern quoll	<i>Dasyurus viverrinus</i>	Endangered
Hastings river mouse	<i>Pseudomys oralis</i>	Endangered
Hopping mouse	<i>Notomys spp.</i>	Presumed extinct
Kultarr	<i>Antechinomys laniger</i> (Gould, 1856)	Endangered
Long-footed potoroo	<i>Potorous longipes</i>	Endangered
Long-haired Rat	<i>Rattus villosissimus</i>	Vulnerable
Long-nosed potoroo	<i>Potorous tridactylus</i>	Vulnerable
Parma wallaby	<i>Macropus parma</i>	Vulnerable
Red-legged pademelon	<i>Thylogale stigmatica</i>	Vulnerable
Rufous bettong	<i>Aepyprymnus rufescens</i>	Vulnerable
Smoky mouse	<i>Pseudomys fumeus</i>	Critically Endangered

Southern brown bandicoot	<i>Isoodon obesulus obesulus</i>	Endangered
Spotted-tailed quoll	<i>Dasyurus maculatus</i>	Vulnerable
Stripe-faced Dunnart	<i>Sminthopsis macroura</i> (Gould, 1845)	Vulnerable
White-footed dunnart	<i>Sminthopsis leucopus</i>	Vulnerable
Western pygmy-possum	<i>Cercartetus concinnus</i>	Endangered
<b>Bats</b>		
Golden-tipped Bat	<i>Kerivoula papuensis</i> Dobson, 1878	Vulnerable
Southern Myotis	<i>Myotis macropus</i> (Gould, 1855)	Vulnerable
<b>Frogs</b>		
Peppered frog	<i>Litoria piperata</i>	Critically Endangered
Glandular frog	<i>Litoria subglandulosa</i>	Vulnerable
Southern corroboree frog	<i>Pseudophryne corroboree</i>	Critically Endangered
Northern corroboree frog	<i>Pseudophryne pengilleyi</i>	Vulnerable
Davies' tree frog	<i>Litoria daviesae</i>	Vulnerable
Giant barred frog	<i>Mixophyes iteratus</i>	Endangered
Giant burrowing frog	<i>Heleioporus australiacus</i>	Vulnerable
Glandular frog	<i>Litoria subglandulosa</i>	Vulnerable
Green and golden bell frog	<i>Litoria aurea</i>	Endangered
Green-thighed frog	<i>Litoria brevipalmata</i>	Vulnerable
Littlejohn's tree frog	<i>Litoria littlejohni</i>	Vulnerable
Pouched frog	<i>Assa darlingtoni</i>	Vulnerable
Red-crowned toadlet	<i>Pseudophryne australis</i>	Vulnerable
Sloane's Froglet	<i>Crinia sloanei</i>	Vulnerable
Sphagnum frog	<i>Philoria sphagnicolus</i>	Vulnerable
Stuttering frog	<i>Mixophyes balbus</i>	Endangered
Mountain frog	<i>Philoria kundagungan</i>	Endangered
Loveridge's frog	<i>Philoria loveridgei</i>	Endangered
Yellow-spotted tree frog	<i>Litoria castanea</i>	critically endangered
Fleay's frog	<i>Mixophyes fleayi</i>	Endangered
(a philora)	<i>Philoria pughi</i>	Endangered
(a philoria)	<i>Philoria richmondensis</i>	Endangered
<b>Birds</b>		
Albert's Lyrebird	<i>Menura alberti</i> Bonaparte, 1850	Vulnerable
Barking Owl	<i>Ninox connivens</i> (Latham, 1801)	Vulnerable
Black-breasted Button-quail	<i>Turnix melanogaster</i> (Gould, 1837)	Critically endangered
Black-breasted Buzzard	<i>Hamirostra melanosternon</i> (Gould, 1841)	Vulnerable
Black-throated Finch (southern subspecies)	<i>Poephila cincta cincta</i> (Gould, 1837)	Endangered
Broad-headed Snake	<i>Hoplocephalus bungaroides</i> (Schlegel, 1837)	Endangered
Bush Stone-curlew	<i>Burhinus grallarius</i> (Latham, 1801)	Endangered
Coxen's Fig-Parrot	<i>Cyclopsitta diopthalma coxeni</i> Gould, 1867	Critically endangered
Eastern Bristlebird	<i>Dasyornis brachypterus</i> (Latham, 1802)	Endangered
Gang-gang Cockatoo	<i>Callocephalon fimbriatum</i> (Grant, 1803)	Vulnerable
Glossy Black-Cockatoo	<i>Calyptorhynchus lathami</i> (Temminck, 1807)	Vulnerable
Grass Owl	<i>Tyto capensis</i> (Smith, 1834)	Vulnerable
Grey Falcon	<i>Falco hypoleucos</i> Gould, 1841	Endangered
Little Eagle	<i>Hieraaetus morphnoides</i> (Gould, 1841)	Vulnerable
Little Lorikeet	<i>Glossopsitta pusilla</i> (Shaw, 1790)	Vulnerable

Major Mitchell's Cockatoo	<i>Cacatua leadbeateri</i> (Vigors, 1831)	Vulnerable
Malleefowl	<i>Leipoa ocellata</i> Gould, 1840	Endangered
Marbled Frogmouth	<i>Podargus ocellatus</i> Quoy & Gaimard, 1830	Vulnerable
Masked Owl	<i>Tyto novaehollandiae</i> (Stephens, 1826)	Vulnerable
Painted Honeyeater	<i>Grantiella picta</i> (Gould, 1838)	Vulnerable
Pied Honeyeater	<i>Certhionyx variegatus</i> Lesson, 1830	Vulnerable
Powerful Owl	<i>Ninox strenua</i> (Gould, 1838)	Vulnerable
Red Goshawk	<i>Erythrotriorchis radiatus</i> (Latham, 1802)	Critically endangered
Red-lored Whistler	<i>Pachycephala rufogularis</i> (Gould, 1841)	Critically endangered
Red-tailed Black-Cockatoo (coastal subspecies)	<i>Calyptorhynchus banksii banksii</i> (Latham, 1790)	Critically endangered
Red-tailed Black-Cockatoo (inland subspecies)	<i>Calyptorhynchus banksii samueli</i> Mathews, 1917	Vulnerable
Regent Honeyeater	<i>Anthochaera phrygia</i> (Shaw, 1794)	Critically endangered
Rufous Scrub-bird	<i>Atrichornis rufescens</i> (Ramsay, 1867)	Vulnerable
Sooty Owl	<i>Tyto tenebricosa</i> (Gould, 1845)	Vulnerable
Spotted Harrier	<i>Circus assimilis</i> Jardine & Selby, 1828	Vulnerable
Squatter Pigeon	<i>Geophaps scripta</i> (Temminck, 1821)	Endangered
Superb Parrot	<i>Polytelis swainsonii</i> (Desmarest, 1826)	Vulnerable
Swift Parrot	<i>Lathamus discolor</i> (Shaw, 1790)	Endangered
Turquoise Parrot	<i>Neophema pulchella</i> (Shaw, 1792)	Vulnerable
<b>Reptiles</b>		
Broad-headed Snake	<i>Hoplocephalus bungaroides</i> (Schlegel, 1837)	Endangered
Pale-headed Snake	<i>Hoplocephalus bitorquatus</i> (Jan, 1859)	Vulnerable
Rosenberg's Goanna	<i>Varanus rosenbergi</i> Mertens, 1957	Vulnerable
White-crowned Snake	<i>Cacophis harriettae</i> Krefft, 1869	Vulnerable
Zigzag Velvet Gecko	<i>Oedura rhombifer</i> Gray, 1845	Endangered

**Table 5: List of targeted flora species**

<b>Botanical name</b>	<b>Status under the NSW Threatened Species Conservation Act 1995</b>
<i>Acacia acronastes</i> Pedley	Endangered
<i>Acacia ausfeldii</i> Regel.	Vulnerable
<i>Acacia bynoeana</i> Benth.	Endangered
<i>Acacia chrysotricha</i> Tind	Endangered
<i>Acacia clunies-rossiae</i> Maiden	Vulnerable
<i>Acacia constablei</i> Tind.	Vulnerable
<i>Acacia courtii</i> Tind. & Herscovitch	Vulnerable
<i>Acacia curranii</i> Maiden	Vulnerable
<i>Acacia flocktoniae</i> Maiden	Vulnerable
<i>Acacia georgensis</i> Tind.	Vulnerable
<i>Acacia jucunda</i> Maiden & Blakely	Endangered
<i>Acacia macnuttiana</i> Maiden & Blakely	Vulnerable

<b>Botanical name</b>	<b>Status under the NSW Threatened Species Conservation Act 1995</b>
<i>Acacia phasmoides</i> J.H. Willis	Vulnerable
<i>Acacia pubescens</i> (Vent.) R. Br.	Vulnerable
<i>Acacia pubifolia</i> Pedley	Endangered
<i>Acacia pycnostachya</i> F. Muell.	Vulnerable
<i>Acacia ruppii</i> Maiden & E. Betche	Endangered
<i>Acalypha eremorum</i> Muell. Arg.	Endangered
<i>Acronychia littoralis</i> T. Hartley & J. Williams	Endangered
<i>Aldrovanda vesiculosa</i> L.	Endangered
<i>Alexfloydia repens</i> B.K. Simon	Endangered
<i>Allocasuarina defungens</i> L. Johnson	Endangered
<i>Allocasuarina simulans</i> L. Johnson	Vulnerable
<i>Almaleea cambagei</i> (Maiden & E. Betche) Crisp & P. Weston	Endangered
<i>Ammobium craspedioides</i> Benth.	Vulnerable
<i>Amphibromus fluitans</i> Kirk	Vulnerable
<i>Amyema plicatula</i> (Krause) Danser	Endangered
<i>Ancistrachne maidenii</i> (A.A. Ham.) Vickery	Vulnerable
<i>Angiopteris evecta</i> Hoffm.	Endangered
<i>Angophora exul</i> K.D. Hill	Endangered
<i>Angophora inopina</i> K.D. Hill	Vulnerable
<i>Angophora robur</i> L. Johnson & K. Hill	Vulnerable
<i>Arthraxon hispidus</i> (Thunb.) Makino	Vulnerable
<i>Arthropteris palisotii</i> (Desv.) Alston	Endangered
<i>Asperula asthenes</i> Airy Shaw & Turrill	Vulnerable
<i>Asterolasia elegans</i> McDougall & Porteners	Endangered
<i>Asterolasia</i> sp. "Dungowan Creek" (Beckers s.n. 25 Oct. 1995)	Endangered
<i>Astrotricha cordata</i> A. Bean	Endangered
<i>Astrotricha</i> sp. Wallagaraugh (R.O. Makinson 1228)	Endangered
<i>Austrostipa metatoris</i> (J. Everett & S.W.L. Jacobs) S.W.L. Jacobs & J. Everett	Vulnerable
<i>Austrostipa wakoolica</i> (Vickery, S.W.L. Jacobs & J. Everett) S.W.L. Jacobs & J. Everett	Endangered
<i>Babingtonia granitica</i> A.R. Bean	Vulnerable
<i>Babingtonia prominens</i> A.R. Bean	Endangered
<i>Babingtonia silvestris</i> A.R. Bean	Endangered
<i>Baloghia marmorata</i> C. White	Vulnerable
<i>Baloskion longipes</i> (L.A.S. Johnson & O.D. Evans) B.G. Briggs & L.A.S. Johnson	Vulnerable
<i>Banksia conferta</i> A.S. George subsp. <i>conferta</i>	Critically Endangered
<i>Belvisia mucronata</i> (Fée) Copel.	Endangered
<i>Bertya ingramii</i> T. James	Endangered
<i>Bertya opponens</i> (F. Muell. ex Benth) Guymmer	Vulnerable
<i>Bertya</i> sp. (Clouds Creek, M. Fatemi 4)	Endangered
<i>Blumea lacera</i> (Burman f.) DC.	Presumed extinct
<i>Boronia granitica</i> Maiden & E. Betche	Vulnerable

<b>Botanical name</b>	<b>Status under the NSW Threatened Species Conservation Act 1995</b>
<i>Boronia hapalophylla</i> Duretto, F.J. Edwards & P.G. Edwards	Endangered
<i>Boronia umbellata</i> P. Weston	Vulnerable
<i>Bosistoa transversa</i> J. F. Bailey & C. T. White <i>sensu lato</i>	Vulnerable
<i>Bossiaea oligosperma</i> A. Lee	Vulnerable
<i>Bulbophyllum globuliforme</i> Nicholls	Vulnerable
<i>Cadellia pentastylis</i> F. Muell.	Vulnerable
<i>Caesia parviflora</i> var. <i>minor</i> R.J.F. Hend.	Endangered
<i>Caladenia arenaria</i> Fitzg.	Endangered
<i>Caladenia concolor</i> Fitzg.	Endangered
<i>Caladenia tessellata</i> Fitzg.	Endangered
<i>Callitris baileyi</i> C. White	Endangered
<i>Callitris oblonga</i> A. Rich. & Rich.	Vulnerable
<i>Calomnion complanatum</i> (Hook.f. & Wilson)	Endangered
<i>Calotis glandulosa</i> F. Muell.	Vulnerable
<i>Chiloglottis anaticeps</i> D.L. Jones	Endangered
<i>Chiloglottis platyptera</i> D.L. Jones	Vulnerable
<i>Choricarpia subargentea</i> (C. White) L. Johnson	Endangered
<i>Clematis fawcettii</i> F. Muell.	Vulnerable
<i>Commersonia rosea</i> S.A.J. Bell & L.M. Copel.	Endangered
<i>Corchorus cunninghamii</i> F. Muell.	Endangered
<i>Corokia whiteana</i> L.S. Smith	Vulnerable
<i>Correa baeuerlenii</i> F. Muell.	Vulnerable
<i>Correa lawrenceana</i> var. <i>genoensis</i> Paul G. Wilson	Endangered
<i>Corybas dowlingii</i> D.L. Jones	Endangered
<i>Corynocarpus rupestris</i> Guymer subsp. <i>rupestris</i>	Vulnerable
<i>Cryptocarya foetida</i> R. Baker	Vulnerable
<i>Cryptostylis hunteriana</i> Nicholls	Vulnerable
<i>Cynanchum elegans</i> (Benth.) Domin	Endangered
<i>Cyperus aquatilis</i> R. Br.	Endangered
<i>Daphnandra</i> sp. C Illawarra (R. Schodde 3475)	Endangered
<i>Darwinia biflora</i> (Cheel) B. Briggs	Vulnerable
<i>Davidsonia jerseyana</i> (F. Muell. ex F.M. Bailey) G. Harden & J.B. Williams	Endangered
<i>Davidsonia johnsonii</i> J.B. Williams & G. Harden	Endangered
<i>Dendrobium melaleucaphilum</i> M.A. Clem. & D.L. Jones	Endangered
<i>Dendrocide moroides</i> (Wedd.) Chew	Endangered
<i>Derwentia blakelyi</i> B. Briggs & Ehrend	Vulnerable
<i>Desmodium acanthocladum</i> F. Muell.	Vulnerable
<i>Dichanthium setosum</i> S.T. Blake	Vulnerable
<i>Dillwynia glaucula</i> Jobson & P.H. Weston	Endangered
<i>Diospyros mabacea</i> (F. Muell.) F. Muell.	Endangered
<i>Diospyros major</i> var. <i>ebenus</i> (Sprengel) Bakh.	Endangered
<i>Diploglottis campbellii</i> Cheel	Endangered

<b>Botanical name</b>	<b>Status under the NSW Threatened Species Conservation Act 1995</b>
<i>Discaria nitida</i> Tortosa	Vulnerable
<i>Diuris aequalis</i> F. Muell. ex Fitzg.	Endangered
<i>Diuris disposita</i> D.L. Jones	Endangered
<i>Diuris pedunculata</i> R. Br.	Endangered
<i>Diuris praecox</i> D.L. Jones	Vulnerable
<i>Diuris</i> sp. (Oaklands, D.L. Jones 5380)	Endangered
<i>Diuris tricolor</i> Fitzg.	Vulnerable
<i>Diuris venosa</i> Rupp	Vulnerable
<i>Dracophyllum macranthum</i> E.A.Br. & N. Streiber	Vulnerable
<i>Drynaria rigidula</i> (Sw.) Beddome	Endangered
<i>Elaeocarpus</i> sp. Rocky Creek (G. Read AQ 562114)	Endangered
<i>Elaeocarpus williamsianus</i> Guymer	Endangered
<i>Eleocharis tetraquetra</i> Nees	Endangered
<i>Endiandra floydii</i> B. Hyland	Endangered
<i>Endiandra hayesii</i> Kosterm.	Vulnerable
<i>Endiandra muelleri</i> subsp. <i>bracteata</i> B. Hyland	Endangered
<i>Eucalyptus approximans</i> Maiden	Vulnerable
<i>Eucalyptus caleyi</i> subsp. <i>ovendenii</i> L. Johnson & K. Hill	Vulnerable
<i>Eucalyptus camfieldii</i> Maiden	Vulnerable
<i>Eucalyptus camphora</i> subsp. <i>relicta</i> L. Johnson & K. Hill	Endangered
<i>Eucalyptus cannonii</i> R. Baker	Vulnerable
<i>Eucalyptus fracta</i> K.D. Hill	Vulnerable
<i>Eucalyptus glaucina</i> Blakely	Vulnerable
<i>Eucalyptus kartzoffiana</i> L. Johnson & Blaxell	Vulnerable
<i>Eucalyptus langleyi</i> L. Johnson & Blaxell	Vulnerable
<i>Eucalyptus leucoxydon</i> F. Muell. subsp. <i>pruinosa</i> (F. Muell. Ex. Miq.)	Vulnerable
<i>Eucalyptus mckieana</i> Blakely	Vulnerable
<i>Eucalyptus nicholii</i> Maiden & Blakely	Vulnerable
<i>Eucalyptus oresbia</i> Hunter and Bruhl	Vulnerable
<i>Eucalyptus pachycalyx</i> subsp. <i>banyabba</i> K.D. Hill	Endangered
<i>Eucalyptus parramattensis</i> subsp. <i>decadens</i> L. Johnson & Blaxell	Vulnerable
<i>Eucalyptus parvula</i> L.A.S. Johnson & K.D. Hill	Endangered
<i>Eucalyptus pulverulenta</i> Sims	Vulnerable
<i>Eucalyptus pumila</i> Cambage	Vulnerable
<i>Eucalyptus recurva</i> Crisp	Critically Endangered
<i>Eucalyptus robertsonii</i> subsp. <i>hemisphaerica</i> L. Johnson & K. Hill	Vulnerable
<i>Eucalyptus rubida</i> subsp. <i>barbigerorum</i> L. Johnson & K. Hill	Vulnerable
<i>Eucalyptus saxatilis</i> Kirkpatr. & Brooker	Endangered
<i>Eucalyptus scoparia</i> Maiden	Endangered
<i>Eucalyptus sturgissiana</i> L. Johnson & Blaxell	Vulnerable
<i>Eucalyptus tetrapleura</i> L. Johnson	Vulnerable
<i>Euphrasia arguta</i> R. Br.	Preliminary Vulnerable

<b>Botanical name</b>	<b>Status under the NSW Threatened Species Conservation Act 1995</b>
<i>Euphrasia bella</i> S. T. Blake	Vulnerable
<i>Euphrasia ciliolata</i> W.R. Barker	Vulnerable
<i>Euphrasia collina</i> subsp. <i>muelleri</i> (Wettst.) W.R. Barker	Endangered
<i>Euphrasia ruptura</i> W.R. Barker	Presumed extinct
<i>Euphrasia scabra</i> R. Br.	Endangered
<i>Floydia praealta</i> (F. Muell.) L. Johnson & B. Briggs	Vulnerable
<i>Fontainea australis</i> Jessup & Guymer	Vulnerable
<i>Fontainea oraria</i> Jessup & Guymer	Critically Endangered
<i>Gaultheria viridicarpa</i> J.B. Williams ms subsp. <i>viridicarpa</i>	Vulnerable
<i>Gaultheria viridicarpa</i> subsp. <i>merinoensis</i> J.B. Williams ms	Vulnerable
<i>Geijera paniculata</i> (F. Muell.) Druce	Endangered
<i>Genoplesium plumosum</i> (Rupp) D.L. Jones & M.A. Clem.	Critically Endangered
<i>Genoplesium vernale</i> D.L. Jones	Vulnerable
<i>Gentiana wissmannii</i> J. Williams	Vulnerable
<i>Geodorum densiflorum</i> (Lam.) Schltr.	Endangered
<i>Gingidia montana</i> (Forster & Forster f.) J. Wyndham Dawson	Endangered
<i>Gossia fragrantissima</i> (F. Muell. ex Benth.) N. Snow & Guymer	Endangered
<i>Grammitis stenophylla</i> B.S. Parris	Endangered
<i>Grevillea banyabba</i> P. Olde & N. Marriott	Vulnerable
<i>Grevillea beadleana</i> McGillivray	Endangered
<i>Grevillea evansiana</i> McKee	Vulnerable
<i>Grevillea guthrieana</i> P. Olde & N. Marriott	Endangered
<i>Grevillea iaspicula</i> McGill.	Critically Endangered
<i>Grevillea masonii</i> P. Olde & N. Marriott	Endangered
<i>Grevillea mollis</i> P. Olde & Molyneux	Endangered
<i>Grevillea molyneuxii</i> D.J. McGillivray	Vulnerable
<i>Grevillea obtusiflora</i> R. Br.	Endangered
<i>Grevillea parviflora</i> R. Br. subsp. <i>parviflora</i>	Vulnerable
<i>Grevillea quadricauda</i> P. Olde & N. Marriott	Vulnerable
<i>Grevillea rhizomatosa</i> P. Olde & N. Marriott	Vulnerable
<i>Grevillea rivularis</i> L. Johnson & McGillivray	Endangered
<i>Grevillea scortechinii</i> subsp. <i>sarmentosa</i> (Blakely & McKie) McGillivray	Vulnerable
<i>Grevillea shiressii</i> Blakely	Vulnerable
<i>Grevillea wilkinsonii</i> R. Makinson	Endangered
<i>Hakea archaeoides</i> W.R. Barker	Vulnerable
<i>Hakea dohertyi</i> Haegi	Endangered
<i>Hakea fraseri</i> R. Br.	Vulnerable
<i>Haloragis exalata</i> F. Muell. subsp. <i>exalata</i>	Vulnerable
<i>Haloragis exalata</i> subsp. <i>velutina</i> Orch.	Vulnerable
<i>Harnieria hygrophiloides</i> (F. Muell.) R. M. Barker	Endangered
<i>Hibbertia hexandra</i> C. White	Endangered
<i>Hibbertia marginata</i> Conn	Vulnerable

<b>Botanical name</b>	<b>Status under the NSW Threatened Species Conservation Act 1995</b>
<i>Hibbertia procumbens</i> (Labill.) DC.	Endangered
<i>Hibbertia superans</i> Toelken	Endangered
<i>Hicksbeachia pinnatifolia</i> F. Muell.	Vulnerable
<i>Homoranthus darwinioides</i> (Maiden & E. Betche) Cheel	Vulnerable
<i>Homoranthus lunatus</i> Craven & S.R. Jones	Vulnerable
<i>Homoranthus prolixus</i> Craven & S.R. Jones	Vulnerable
<i>Hypolepis elegans</i> Carruth.	Presumed extinct
<i>Indigofera efoliata</i> F. Muell.	Endangered
<i>Irenepharsus magicus</i> Hewson	Endangered
<i>Irenepharsus trypherus</i> Hewson	Endangered
<i>Isoglossa eranthemoides</i> (F. Muell.) R. Barker	Endangered
<i>Knoxia sumatrensis</i> (Retz.) DC.	Presumed extinct
<i>Kunzea cambagei</i> Maiden & E. Betche	Vulnerable
<i>Kunzea rupestris</i> Blakely	Vulnerable
<i>Lasiopetalum longistamineum</i> Maiden & Betche	Vulnerable
<i>Lepidium aschersonii</i> Thell.	Vulnerable
<i>Lepidium hyssopifolium</i> Desv.	Endangered
<i>Lepidium monoplocoides</i> F. Muell.	Endangered
<i>Lepidium peregrinum</i> Thell.	Endangered
<i>Leptorhynchus orientalis</i> Paul G. Wilson	Endangered
<i>Leptospermum deanei</i> J. Thompson	Vulnerable
<i>Leptospermum thompsonii</i> J. Thompson	Vulnerable
<i>Leucopogon confertus</i> Benth.	Endangered
<i>Lindsaea brachypoda</i> (Baker) Salomon	Endangered
<i>Lindsaea fraseri</i> Hook.	Endangered
<i>Lindsaea incisa</i> Prent.	Endangered
<i>Macadamia tetraphylla</i> L. Johnson	Vulnerable
<i>Macrozamia johnsonii</i> D.L. Jones & K. Hill	Endangered
<i>Marsdenia longiloba</i> Benth.	Endangered
<i>Melaleuca biconvexa</i> Byrnes	Vulnerable
<i>Melaleuca irbyana</i> R.T. Baker	Endangered
<i>Melichrus hirsutus</i> J.B. Williams ms	Endangered
<i>Melichrus</i> sp. Gibberagee (A.S. Benwell & J.B. Williams 97239)	Endangered
<i>Micromelum minutum</i> (Forster f.) Wight & Arn.	Presumed extinct
<i>Monotaxis macrophylla</i> Benth.	Endangered
<i>Monotoca rotundifolia</i> J.H. Willis	Endangered
<i>Muellerina myrtifolia</i> (Cunn. ex Benth.) Barlow	Endangered
<i>Myriophyllum implicatum</i> Orchard	Critically Endangered
<i>Myrsine richmondensis</i> Jackes	Endangered
<i>Neoastelia spectabilis</i> J.B. Williams	Vulnerable
<i>Niemeyera whitei</i> (Aubrev.) Jessup	Vulnerable
<i>Oberonia complanata</i> (A. Cunn.) M.A. Clem. & D.L. Jones	Endangered

<b>Botanical name</b>	<b>Status under the NSW Threatened Species Conservation Act 1995</b>
<i>Oberonia titania</i> Lindl.	Vulnerable
<i>Ochrosia moorei</i> (F. Muell.) F. Muell. ex Benth.	Endangered
<i>Olax angulata</i> A.S. George	Vulnerable
<i>Oldenlandia galioides</i> (F. Muell.) F. Muell.	Endangered
<i>Olearia cordata</i> Lander	Vulnerable
<i>Olearia flocktoniae</i> Maiden & E. Betche	Endangered
<i>Owenia cepiodora</i> F. Muell.	Vulnerable
<i>Parsonsia dorrigoensis</i> J.B. Williams ms	Vulnerable
<i>Paspalidium grandispiculatum</i> B.K Simon	Vulnerable
<i>Persicaria elatior</i> (R. Br.) Sojak	Vulnerable
<i>Persoonia glaucescens</i> Sieber ex Spreng.	Endangered
<i>Persoonia hindii</i> P.H. Weston & L.A.S. Johnson	Endangered
<i>Phaius australis</i> F. Muell.	Endangered
<i>Phaius tancarvilleae</i> (Banks ex L'Her.) Blume	Endangered
<i>Phebalium glandulosum</i> subsp. <i>eglandulosum</i> (Blakely) Paul G. Wilson	Endangered
<i>Philothea myoporoides</i> subsp. <i>obovatifolia</i> M.J. Bayly	Endangered
<i>Phyllanthus microcladus</i> Muell. Arg.	Endangered
<i>Phyllota humifusa</i> Benth.	Vulnerable
<i>Picris evae</i> Lack	Vulnerable
<i>Pilularia novae-hollandiae</i> A. Braun	Endangered*
<i>Pimelea spicata</i> R. Br.	Endangered
<i>Pimelea venosa</i> Threlfall	Endangered
<i>Platyzoma microphyllum</i> R. Br.	Endangered
<i>Plectranthus allopectus</i> S.T. Blake	Endangered
<i>Plectranthus nitidus</i> P. Forst.	Endangered
<i>Plinthanthesis rodwayi</i> (C.E. Hubb) S.T. Blake	Endangered
<i>Polygala linariifolia</i> Willd.	Endangered
<i>Pomaderris bodalla</i> N.G. Walsh & F. Coates	Vulnerable
<i>Pomaderris brunnea</i> Wakef.	Vulnerable
<i>Pomaderris cotoneaster</i> Wakef.	Endangered
<i>Pomaderris elachophylla</i> F. Muell.	Endangered
<i>Pomaderris gilmourii</i> var. <i>cana</i> N. Walsh	Vulnerable
<i>Pomaderris pallida</i> Wakef.	Vulnerable
<i>Pomaderris parrisiae</i> N. Walsh	Vulnerable
<i>Pomaderris queenslandica</i> C. White	Endangered
<i>Pomaderris sericea</i> Wakef.	Endangered
<i>Prasophyllum affine</i> Lindl.	Endangered
<i>Prasophyllum bagoensis</i> D.L. Jones	Endangered
<i>Prasophyllum canaliculatum</i> D.L. Jones	Critically Endangered
<i>Prasophyllum fuscum</i> R. Br. <i>sensu stricto</i>	Critically Endangered
<i>Prasophyllum innubum</i> D.L. Jones	Critically Endangered
<i>Prasophyllum keltonii</i> D.L. Jones	Critically Endangered

<b>Botanical name</b>	<b>Status under the NSW Threatened Species Conservation Act 1995</b>
<i>Prasophyllum petilum</i> D.L. Jones & R.J. Bates	Endangered
<i>Prostanthera askania</i> B.J. Conn (formerly known as <i>Prostanthera</i> sp. Strickland State Forest (J.H. Maiden s.n., 07/1915))	Endangered
<i>Prostanthera densa</i> A.A. Ham.	Vulnerable
<i>Prostanthera junonis</i> B.J. Conn	Endangered
<i>Prostanthera palustris</i> B.J. Conn	Vulnerable
<i>Prostanthera staurophylla</i> F. Muell. sensu stricto	Endangered
<i>Pseudanthus ovalifolius</i> F. Muell.	Endangered
<i>Psilotum complanatum</i> Sw.	Endangered
<i>Pterostylis cobarensis</i> M.A. Clem.	Vulnerable
<i>Pterostylis cucullata</i> R. Br.	Vulnerable
<i>Pterostylis elegans</i> D.L. Jones	Vulnerable
<i>Pterostylis gibbosa</i> R. Br.	Endangered
<i>Pterostylis metcalfei</i> D.L. Jones	Endangered
<i>Pterostylis nigricans</i> L. Jones & M.A. Clem.	Vulnerable
<i>Pultenaea humilis</i> Benth. ex Hook. F.	Vulnerable
<i>Pultenaea parrisiae</i> J.D. Briggs & Crisp subsp. <i>parrisiae</i>	Vulnerable
<i>Quassia</i> sp. Mooney Creek (J. King s.n., 1949)	Endangered
<i>Randia moorei</i> F. Muell. ex Benth.	Endangered
<i>Rhizanthella slateri</i> (Rupp) M.A. Clem. and P.J. Cribb	Vulnerable
<i>Rhynchosia acuminatissima</i> Miq.	Vulnerable
<i>Rulingia procumbens</i> Maiden & Betche	Vulnerable
<i>Rulingia prostrata</i> Maiden & Betche	Endangered
<i>Rutidosis heterogama</i> Philipson	Vulnerable
<i>Rutidosis leiolepis</i> F. Muell.	Vulnerable
<i>Rutidosis leptorrhynchoides</i> F. Muell.	Endangered
<i>Sarcochilus dilatatus</i> F. Muell.	Endangered
<i>Sarcochilus fitzgeraldii</i> F. Muell.	Vulnerable
<i>Sarcochilus hartmannii</i> F. Muell.	Vulnerable
<i>Sarcochilus weinthalii</i> (F.M. Bailey) Dockrill	Vulnerable
<i>Senna acclinis</i> (F. Muell.) Randell	Endangered
<i>Sida rohlenae</i> Domin	Endangered
<i>Solanum celatum</i> A.R. Bean	Endangered
<i>Solanum limitare</i> A.R. Bean	Endangered
<i>Sophora fraseri</i> Benth.	Vulnerable
<i>Styphelia perileuca</i> J. Powell	Vulnerable
<i>Swainsona murrayana</i> Wawra	Vulnerable
<i>Swainsona recta</i> A. Lee	Endangered
<i>Swainsona sericea</i> (A. Lee) J. Black ex H. Eichler	Vulnerable
<i>Symplocos baeuerlenii</i> R. Baker	Vulnerable
<i>Syzygium hodgkinsoniae</i> (F. Muell.) L. Johnson	Vulnerable
<i>Syzygium moorei</i> (F. Muell.) L. Johnson	Vulnerable
<i>Syzygium paniculatum</i> Gaertn.	Endangered

<b>Botanical name</b>	<b>Status under the NSW Threatened Species Conservation Act 1995</b>
<i>Tasmannia glaucifolia</i> J. Williams	Vulnerable
<i>Tasmannia purpurascens</i> (Vick.) A.C. Smith	Vulnerable
<i>Tephrosia filipes</i> Benth.	Vulnerable
<i>Tetratheca glandulosa</i> Smith	Vulnerable
<i>Tetratheca juncea</i> Smith	Vulnerable
<i>Thelymitra atronitida</i> Jeanes	Critically Endangered
<i>Thesium australe</i> R. Br.	Vulnerable
<i>Tinospora smilacina</i> Benth.	Endangered
<i>Tinospora tinosporoides</i> (F. Muell.) Forman	Vulnerable
<i>Triflorensia cameronii</i> (C. T. White) S. T. Reynolds	Endangered
<i>Triplarina imbricata</i> (Sm.) A.R. Bean	Endangered
<i>Triplarina nowraensis</i> A.R. Bean	Endangered
<i>Tylophora linearis</i> P.I. Forst.	Vulnerable
<i>Tylophora woollsii</i> Benth.	Endangered
<i>Typhonium</i> sp. aff. <i>brownii</i> (A.G. Floyd 11/3/1958 North Coast Regional Botanic Garden Herbarium 585)	Endangered
<i>Uromyrtus australis</i> A.J. Scott	Endangered
<i>Velleia perfoliata</i> R. Br.	Vulnerable
<i>Wahlenbergia scopulicola</i> Carolin ex P.J. Smith	Endangered
<i>Westringia kydrensis</i> Conn	Endangered
<i>Zieria adenophora</i> Blakely	Critically Endangered
<i>Zieria baeuerlenii</i> J.A. Armstrong	Endangered
<i>Zieria citriodora</i> J.A. Armstrong	Endangered
<i>Zieria floydii</i> J.A. Armstrong	Endangered
<i>Zieria granulata</i> C. Moore ex Benth.	Endangered
<i>Zieria ingramii</i> J.A. Armstrong	Endangered
<i>Zieria involucrata</i> R. Br. ex Benth.	Endangered
<i>Zieria lasiocaulis</i> J.A. Armstrong	Endangered
<i>Zieria murphyi</i> Blakely	Vulnerable
<i>Zieria prostrata</i> J.A. Armstrong	Endangered
<i>Zieria tuberculata</i> J.A. Armstrong	Vulnerable

**Table 6: Analysis of Forests NSW alignment with Global Reporting Initiative indicators**

Indicators	Included	Comment
1.1 Statement of the organisation’s vision and strategy regarding its contribution to sustainable development.	✓	
1.2 Two narrative sections on key impacts, risks, opportunities.	✓	
2.1 Name of reporting organisation.	✓	
2.2 Major products and/or services, including brands if appropriate.	✓	
2.3 Operational structure of the organisation.	✓	
2.4 Location of organizations headquarters.	✓	
2.5 Countries in which the organisation’s operations are located.	✓	
2.6 Nature of ownership; legal form.	✓	
2.7 Nature of markets served.	✓	
2.8 Scale of the reporting organisation:		
number of employees;	✓	
products produced/services offered (quantity or volume);	✓	
net sales; and	✓	
total capitalisation	✓	
value added;	✓	Value is added to our product by delivering the product at the mill door rather than stumpage sales (selling the trees prior to harvesting). Also through the application of appropriate silvicultural treatments.
total assets; and	✓	
breakdowns of any or all of the following:		
sales/revenues by countries/regions that make up 5 percent or more of total revenues;	✓	
major products and/or identified services;	✓	
costs by country/region; and	✓	Forests NSW operates within NSW and does not currently report costs for each operation regions.
employees by country/region.	✓	Forests NSW operates within NSW and does not currently report employee numbers by operation region, although this information in reported in the Forest Agreement Implementation Reports for Forest

Indicators	Included	Comment
		Agreement area.
2.9 Significant changes in size, structure, ownership, or products/services that have occurred since the previous report.	✓	Performance against CBS targets.
2.10 Awards received in the reporting period	✓	No awards were received.
3.1 Reporting period (e.g., fiscal/calendar year) for information provided.	✓	
3.2 Date of most recent previous report (if any).	✓	
3.3 Reporting Cycle	✓	
3.4 Contact point for questions regarding the report	✓	
3.5 Process for defining report content, including materiality, prioritizing topics and identifying stakeholders	✓	
3.6 Boundaries of report (countries/regions, products/services, divisions/facilities/joint ventures/subsidiaries) and any specific limitations on the scope.	✓	
3.7 State any specific limitations on the scope or boundary of the report	✓	These are stated in the footnotes of specific indicators
3.8 Basis for reporting on joint ventures, partially owned subsidiaries, leased facilities, outsourced operations, and other situations that can significantly affect comparability from period to period and/or between reporting organisations.	✓	Indicators specify the scope of reported data, where this may be ambiguous
3.9 Data measurement techniques and the bases of calculations, including assumptions and techniques underlying estimations applied to the compilation of the Indicators and other information in the report. Explain any decisions not to apply, or to substantially diverge from, the GRI Indicator Protocols.	✓	Further details on each indicator are provided in the reporting supplement and this document
3.10 Explanation of the nature and effect of any re-statements of information provided in earlier reports, and the reasons for such re-statement (e.g., mergers/acquisitions, change of base years/periods, nature of business, measurement methods).	✓	As required in the sustainability indicators
3.11 Significant changes from previous reporting periods in the scope, boundary, or measurement methods applied in the report.	✓	
3.12 Table identifying the location of the Standard Disclosures in the report. Identify the page numbers or web links.	✓	

Indicators	Included	Comment
3.13 Policy and current practice with regard to providing independent assurance for the full report.	✓	
4.1 Governance structure of the organisation, including major committees under the board of directors that are responsible for setting strategy and for oversight of the organisation.	partly	Major committees have not been reported
4.2 Indicate whether the Chair of the highest governance body is also an executive officer (and, if so, their function within the organization's management and the reasons for this arrangement).	✓	
4.3 For organizations that have a unitary board structure, state the number of members of the highest governance body that are independent and/or non-executive members.	⊖	
4.4 Mechanisms for shareholders and employees to provide recommendations or direction to the board of directors.	✓	Non Conformance and Improvement System provides the mechanism for feedback. As a Public Trading Enterprise Forests NSW has obligations to provide response to enquiries from the electorate. The NSW Auditor General undertakes audits of Forests NSW on behalf of Government and Forests NSW is committed to implementing recommendations resulting from Auditor Generals reports.
4.5 Linkage between executive compensation and achievement of the organisation's financial and non-financial goals (e.g., environmental performance, labour practices).	⊖	
4.6 Processes in place for the highest governance body to ensure conflicts of interest are avoided.	✓	Code of Conduct
4.7 Process for determining the qualifications and expertise of the members of the highest governance body for guiding the organization's strategy on economic, environmental, and social topics.	✓	
4.8 Internally developed statements of mission or values, codes of conduct, and principles relevant to economic, environmental, and social performance and the status of their implementation.	✓	
4.9 Procedures of the highest governance body for overseeing the organization's identification and management of economic, environmental, and social performance, including relevant risks and opportunities, and adherence or compliance with internationally agreed standards, codes of conduct, and principles.	✓	

Indicators	Included	Comment
4.10 Processes for evaluating the highest governance body's own performance, particularly with respect to economic, environmental, and social performance.	✓	Corporate Business Strategy and Safety Strategy
4.11 Explanation of whether and how the precautionary approach or principle is addressed by the organisation.	✓	
4.12 Externally developed, voluntary economic, environmental, and social charters, sets of principles, or other initiatives to which the organisation subscribes or which it endorses.	✓	
4.13 Memberships in associations (such as industry associations) and/or national/international advocacy organizations in which the organization:	✗	
4.14 List of stakeholder groups engaged by the organization.	✓	
4.15 Basis for identification and selection of stakeholders with whom to engage.	✗	This is primarily dictated by the operation undertaken by Forests NSW. A Stakeholder Identification Procedure is in place to ensure that new stakeholders are identified, while existing stakeholder are recorded at the Regional and Corporate levels.
4.16 Approaches to stakeholder engagement, including frequency of engagement by type and by stakeholder group.	✓	
4.17 Key topics and concerns that have been raised through stakeholder engagement, and how the organization has responded to those key topics and concerns, including through its reporting.	✓	
EN1. Total materials use by weight or volume.	partly	
EN2. Percentage of materials used that are recycled input materials.	partly	
EN3. Direct energy consumption by primary energy source.	✓	
EN4. Indirect energy consumption by primary energy source.	partly	
EN5. <i>Energy saved due to conservation and efficiency improvements.</i>	✓	
EN6. <i>Initiatives to provide energy-efficient or renewable energy based products and services, and reductions in energy requirements as a result of these initiatives.</i>	✓	
EN7. <i>Initiatives to reduce indirect energy consumption and reductions achieved.</i>	✓	With additional information provided in the Forests NSW WRAPP Report
EN8. Total water withdrawal by source	✓	This relates to water used by Forests NSW, rather than water used by the forests themselves.

Indicators	Included	Comment
<i>EN9. Water sources significantly affected by use of water.</i>	✗	
<i>EN10. Percent and total volume of water recycled and reused.</i>	✗	
EN11. Location and size of land owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas.	✓	
EN12. Description of significant impacts of activities, products, and services on biodiversity in protected areas and areas of high biodiversity value outside protected areas.	✓	
<i>EN13. Habitats protected or restored.</i>	✓	
<i>EN14. Strategies, current actions, and future plans for managing impacts on biodiversity</i>	✓	
<i>EN15. Number of IUCN Red List species and national conservation list species with habitats in areas affected by operations, by level of extinction risk.</i>	partly	A list of threatened fauna and flora species is contained as an appendix within this document.
EN16. Direct and indirect greenhouse gas emissions.	✓	
EN17. Other relevant indirect greenhouse gas emissions by weight.	✓	Reported as net CO <sub>2</sub> -e sequestration
<i>EN18. Initiatives to reduce greenhouse gas emissions and reductions achieved.</i>	partly	Initiative are not addressed
EN19. Emissions of ozone-depleting substances by weight.	partly	factored into native forests carbon model
EN20. NO, SO, and other significant air emissions by type and weight.	partly	factored into native forests carbon model
EN21. Total water discharge by quality and destination.	✗	Forests NSW does not have processes that result from significant water discharge other than nursery production. In this are significant improvement have been achieved through the upgrade of the Blowering Nursery (page 9)
EN22. Total weight of waste by type and disposal method.	✗	
EN23. Total number and volume of significant spills	partly	While Forests NSW report non compliances which would include spills the organisation does not specifically identify these in the Annual Report. No fines or prosecutions were imposed relating to spills.
<i>EN24. Weight of transported, imported, exported, or treated waste deemed hazardous under the terms of the Basel Convention Annex I, II, III, and VIII, and percentage of transported waste shipped internationally.</i>	✗	

Indicators	Included	Comment
<i>EN25. Identity, size, protected status, and biodiversity value of water bodies and related habitats significantly affected by the reporting organization's discharges of water and runoff.</i>	✗	
EN26. Initiatives to mitigate environmental impacts of products and services, and extent of impact mitigation.	✓	The maintaining the Australian Forestry Standard is such an initiative and is detailed in the report
EN27. Percentage of products sold and their packaging materials that are reclaimed by category.	partly	Packaging is not relevant to timber sales
EN28. Monetary value of significant fines and total number of non-monetary sanctions for noncompliance with environmental laws and regulations.	✓	
<i>EN29. Significant environmental impacts of transporting products and other goods and materials used for the organization's operations, and transporting members of the workforce.</i>	✗	The environmental impact is reported through National Greenhouse and Energy Reporting
<i>EN30. Total environmental protection expenditures and investments by type.</i>	✓	
HR1. Percentage and total number of significant investment agreements that include human rights clauses or that have undergone human rights screening.	✗	Significant investment agreements are entered into relating to our estate or services provided within NSW. State and federal legislation relating to human rights applies
HR2 Percentage of significant suppliers and contractors that have undergone screening on human rights and actions taken.	✗	Significant suppliers and contractors are contracted to provide services and goods within NSW. State and federal legislation relating to human rights applies
<i>HR3 Total hours of employee training on policies and procedures concerning aspects of human rights that are relevant to operations, including the percentage of employees trained.</i>	partly	
HR4 Total number of incidents of discrimination and actions taken.	✗	No incidents of discrimination were reported.
HR5 Operations identified in which the right to exercise freedom of association and collective bargaining may be at significant risk, and actions taken to support these rights.	✗	
HR6. Operations identified as having significant risk for incidents of child labour, and measures taken to contribute to the elimination of child labour	✗	Legislation within NSW protects against child labour
HR7. Operations identified as having significant risk for incidents of forced or compulsory labour, and measures to contribute to the	✗	Legislation within NSW protects against forced labour

Indicators	Included	Comment
elimination of forced or compulsory labour.		
<i>HR8. Percentage of security personnel trained in the organization's policies or procedures concerning aspects of human rights that are relevant to operations.</i>	×	While security personnel are not employed by Forests NSW directly security services are employed in a small number of instances. These were engaged in line with NSW Government policy. In addition some operational staff are trained as authorised officer under the <i>Forestry Act 1916</i> to enforce regulations under the Act within State forests.
<i>HR9. Total number of incidents of violations involving rights of indigenous people and actions taken.</i>	×	
LA1. Total workforce by employment type, employment contract, and region.	partly	employment type, employment contract, but not region as the organisation is not large enough to warrant this much detail
LA2. Total number and rate of employee turnover by age group, gender, and region.	partly	
<i>LA3. Benefits provided to full-time employees that are not provided to temporary or part-time employees, by major operations.</i>	×	
LA4. Percentage of employees covered by collective bargaining agreements.	×	While not stated in the report specifically, all Government employees are covered by collective bargaining agreements.
LA5. Minimum notice period(s) regarding operational changes, including whether it is specified in collective agreements.	×	
<i>LA6. Percentage of total workforce represented in formal joint management-worker health and safety committees that help monitor and advise on occupational health and safety programs.</i>	×	All staff are represented by health and safety committees, however this is not specifically stated in the report.
LA7. Rates of injury, occupational diseases, lost days, and absenteeism, and number of work-related fatalities by region.	partly	A number of safety indicators are reported in pages 14 & 15, while data relating to workers compensation is provided on page 121
LA8. Education, training, counseling, prevention, and risk-control programs in place to assist workforce members, their families, or community members regarding serious diseases.	×	
LA9. Health and safety topics covered in formal agreements with trade unions.	×	
LA10. Average hours of training per year per employee by employee category.	×	Not provided by employee category
<i>LA11. Programs for skills management and lifelong learning that support the continued employability of employees and assist them in</i>	×	

Indicators	Included	Comment
<i>managing career endings.</i>		
<i>LA12. Percentage of employees receiving regular performance and career development reviews.</i>	✗	
LA13. Composition of governance bodies and breakdown of employees per category according to gender, age group, minority group membership, and other indicators of diversity.	✓	Senior Management Team is detailed on page 5, while Table 1 & 2 on page 112 give percentages of minority groups within the organisation
LA14. Ratio of basic salary of men to women by employee category.	✓	
SO1. Nature, scope, and effectiveness of any programs and practices that assess and manage the impacts of operations on communities, including entering, operating, and exiting.	✓	
SO2. Percentage and total number of business units analyzed for risks related to corruption.	✓	Addressed as part of the report on internal audit and risk management policy.
SO3. Percentage of employees trained in organization's anti-corruption policies and procedures.	✗	Not reported
SO4. Actions taken in response to incidents of corruption.	✗	Incidents would be referred to the NSW Independent Commission Against Corruption, but not reported in the Annual Report
SO5. Public policy positions and participation in public policy development and lobbying.	✗	As a Publicly Trading Enterprise policy positions are articulated through the NSW Minister for Primary Industries
<i>SO6. Total value of financial and in-kind contributions to political parties, politicians, and related institutions by country.</i>	⊖	As a Publicly Trading Enterprise no payment of this kind are made.
<i>SO7. Total number of legal actions for anticompetitive behavior, anti-trust, and monopoly practices and their outcomes.</i>	✗	None during reporting period
<i>SO8. Total number of legal actions for anticompetitive behavior, anti-trust, and monopoly practices and their outcomes.</i>	✗	None during reporting period
PR1. Life cycle stages in which health and safety impacts of products and services are assessed for improvement, and percentage of significant products and services categories subject to such procedures.	✗	
<i>PR2 Total number of incidents of non-compliance with regulations and voluntary codes concerning health and safety impacts of products and services during their life cycle, by type of outcomes.</i>	✗	

Indicators	Included	Comment
PR3. Type of product and service information required by procedures, and percentage of significant products and services subject to such information requirements.	✗	The proportion of Timber that is required to meet customer CoC requirements is not currently reported, but this is under development
<i>PR4. Total number of incidents of non-compliance with regulations and voluntary codes concerning product and service information and labeling, by type of outcomes.</i>	✗	
<i>PR5. Practices related to customer satisfaction, including results of surveys measuring customer satisfaction.</i>	✗	
PR6. Programs for adherence to laws, standards, and voluntary codes related to marketing communications, including advertising, promotion, and sponsorship.	✗	None reported
<i>PR7. Total number of incidents of non-compliance with regulations and voluntary codes concerning marketing communications, including advertising, promotion, and sponsorship by type of outcomes.</i>	✗	None reported
<i>PR8 Total number of substantiated complaints regarding breaches of customer privacy and losses of customer data.</i>	✗	None reported
<i>PR 9 Monetary value of significant fines for noncompliance with laws and regulations concerning the provision and use of products and services.</i>	✓	
EC1. Direct economic value generated and distributed, including revenues, operating costs, employee compensation, donations and other community investments, retained earnings, and payments to capital providers and governments.	✓	Details contained in financial statement
EC2. Financial implications and other risks and opportunities for the organization's activities due to climate change.	✓	
EC3 Coverage of the organization's defined benefit plan obligations.	✓	Contained in financial statement
EC4. Significant financial assistance received from government.	✓	Contained in financial statement
<i>EC5 Range of ratios of standard entry level wage compared to local minimum wage at significant locations of operation.</i>	✗	
EC6 Policy, practices, and proportion of spending on locally-based suppliers at significant locations of operation.	✗	Dictated by Government policy

Indicators	Included	Comment
EC7 Procedures for local hiring and proportion of senior management hired from the local community at locations of significant operation.	✓	Addressed by EEO policy
EC8 Development and impact of infrastructure investments and services provided primarily for public benefit through commercial, inkind, or pro bono engagement.	✓	
<i>EC9. Understanding and describing significant indirect economic impacts, including the extent of impacts.</i>	✓	

**Table 7: Keys for analysis of Forests NSW alignment with Global Reporting Initiative indicators (table 6)**

Description	Symbol
Reported	✓
Partially reported	partly
Not reported	✗
Not relevant to the organisation as a Public Trading Enterprise within a Government department	⊖