

Timber harvesting in native State forests

Forest Management

There are approximately 2 million hectares of native State forests in NSW. In managing these areas, Forests NSW aims to sustainably supply forest products, in particular timber, and other natural values and services to the community, to meet social, environmental and economic values.

Part of Forests NSW management role is to administer the harvesting of forests to provide timber for products, such as furniture, building materials and paper.

Ecologically sustainable forest management (ESFM)

Ecologically sustainable forest management (ESFM) is the guiding philosophy for forest conservation and management. The forest is managed to maintain ecological processes and biodiversity while optimising the benefits to the community from all uses of the forest, both now and into the future.

Within native State forests, up to 24% is set aside permanently as part of a comprehensive, adequate and representative (CAR) reserve system, and is managed primarily to conserve forest values.

Outside the CAR reserve system, values such as forest plants and animals, water quality and Aboriginal and European cultural heritage are also protected through a rigorous process of planning, approvals and prescriptions that are required by law.

ESFM plans now exist for all Forests NSW regions across NSW. The plans provide the strategic framework for the management of planted and native forests over a five year period. The ESFM plans show how Forests NSW are committed to sustainable forest management and are used as

the basis of supplementary plans such as Grazing Management, Flora Reserve Management and Fire Management, ultimately influencing each harvest plan.

The ESFM plans are available to view on the DPI Forests NSW website: www.dpi.nsw.gov.au/forests

Each year, only a small percentage (approximately 3%) of native State forests in NSW is harvested. This Primefact aims to explain the levels of planning and approvals which are required before, during and after harvesting takes place in State Forests.

The harvest plan

Each harvesting plan draws together specialist information on soil and water, threatened species, Aboriginal and European heritage, silviculture (the care and cultivation of trees), road construction and maintenance, and inventory data (information on the numbers and types of trees in the area). The information is condensed into a succinct plan, including detailed maps developed using a Geographic Information System (GIS). All harvest plans are available for the public to view at the local Forests NSW office of which the plan has been prepared.

It is essential that Forests NSW staff, contractors and operators follow the site-specific conditions set out in a harvest plan as well as observing the Forest Practices Code for Timber Harvesting.

Harvest plans are generally prepared on a forest compartment basis, covering an average area of 250 hectares. The harvest plan contains conditions that maintain environmental values while permitting timber harvesting by:

- restricting the area to be disturbed to suitable locations, and defining which trees will or won't be felled

- ensuring protection of the soil through erosion control
- retaining wildlife habitat, and maintaining undisturbed vegetation around streams, drainage lines and wildlife corridors
- rehabilitating timber harvesting sites
- avoiding environmentally sensitive areas, which may include habitat for endangered species, rainforest, steep terrain, archaeological sites, scenic areas or recreation areas.

Each harvest plan also addresses regulatory requirements for road construction, harvesting and fire management, as well as other Forests NSW activities.

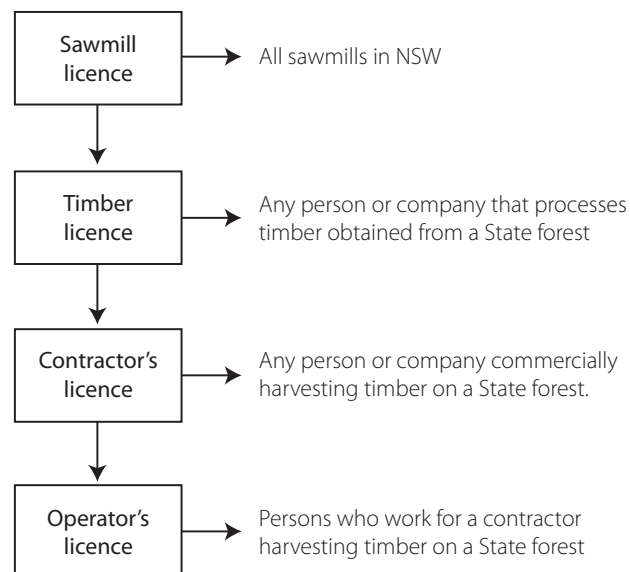
Harvesting the forest

Timber harvesting in State forests is undertaken by contractors. Forests NSW staff, in particular supervising forest officers (SFOs), strictly supervise harvesting contractors, ensuring compliance with the harvest plan and regulations that protect the forest environment.

Forests NSW directly employs some contractors under timber merchandising agreements. Each harvesting contractor has a contractor's licence that authorises their company to work within and remove timber from State forests. People employed by contractors must have an operator's licence. Operator's licence holders are suitably trained and accredited in the safe and proficient handling of equipment to undertake harvesting work, including chainsaws and heavy moving equipment. A key requirement for each contractor is the maintenance of an appropriate safety management system that ensures safety provisions are addressed at each operating location.

Forests NSW also requires operators of harvesting machinery to have successfully completed a training course in forest soil and water protection.

Licensing



All timber mills in NSW must have a Sawmill Licence regardless of the origin of their logs.

To purchase timber from Forests NSW, sawmills and other customers must have a timber licence. Timber licences attract an annual fee and all timber products sold from Forests NSW require payments, otherwise known as 'royalties'.

Royalties for log products produced from Forests NSW are essentially set by market based pricing systems that recognise the value to industry of accessing and processing them into the mix of end products. In general royalties are higher for higher quality, larger logs of more marketable species with very high royalties set for some specialist products such as veneer logs, electricity transmission poles and marine piles.

The higher quality sawlogs are termed 'quota' sawlogs and form the basis of sale agreements with sawmills. Sale agreements set maximum volumes of quota sawlogs that can be harvested each year.

Regulations for timber harvesting

Timber harvesting on State forests is subject to NSW environmental planning, protection and management laws. In some regions, comprehensive regional assessments have resulted in Forest Agreements and Integrated Forestry Operations Approvals (IFOA) under the authority of the *Forestry and National Parks Estate Act*.

The IFOA stipulates the nature and extent of activities that can take place and the conditions which must apply in State forests. In other regions,

Forests NSW has completed resource assessments and negotiated strategic timber supply levels, and harvesting can only proceed after the requirements of environmental legislation have been considered.

Forest Practices Code for Timber Harvesting – this code provides clear guidelines on all aspects of timber harvesting in State forests. For example, it specifies the legislation and protocols which dictate:

- environmental protection measures for soil and water
- protection of flora and fauna
- occupational health and safety measures
- planning for harvesting operations
- standards for measuring, tallying and removal of timber.

Forests NSW Licence Conditions are an agreement between Forests NSW and licensees that operators and contractors will conduct harvesting operations in accordance with the Forest Practices Code for Timber Harvesting.

Additionally, Codes of Procedure, a written agreement between Forests NSW and timber licensees, document the method and conditions of timber sales and collection of royalties.

External regulation

Licences under the *Threatened Species Conservation Act*, the *Fisheries Management Act* and the *Protection of the Environment and Operations Act* regulate how operations on State forests are to be planned, implemented and monitored. Each licence is administered by the relevant regulatory agency.

The Threatened Species Licence issued by the Department of Environment and Climate Change specifies, among other things, how wildlife surveys are to be conducted and site specific requirements if threatened species are located before or during harvesting.

The Department of Environment and Climate Change also administers the sections of the IFOA that specify practical measures (such as drainage structure spacing and requirements) to prevent water pollution during harvesting operations.

Harvest plans must also be consistent with provisions in Forests NSW regional ecologically sustainable forest management plans and ascribe to the overall objectives of ecologically sustainable forest management.

Additionally, the Forest Management Zoning (FMZ) system sets out in map format the way in which Forests NSW intends to manage each forest area

across the entire State forest estate. The FMZ system is a landscape management tool that clearly identifies those areas of the forest managed as conservation reserves, recreation areas and historical sites, and those areas managed for timber production. FMZ maps are important for the development of the more detailed harvest plan.

Forestry activities must also comply with a diverse range of other legislation, including the *Rural Fires Act 1997*, and the *Occupational Health and Safety Act 2000*.

How is harvesting carried out?

Before any trees are cut down, a supervising forest officer or forester walks through the forest and uses paint or tape to mark the trees to be retained or removed, and the buffers and boundaries specified in the harvesting plan.

Trees are often felled using a chainsaw, with the operator removing the limbs and head of the tree where it has fallen. Increasingly, under log merchandising contracts, mechanical harvesters are being used to fell trees and remove limbs and bark. A bulldozer or skidder then takes the tree to a log landing, or log dump, where an excavator removes bark. The logs are then sorted and graded by a qualified log grader before being hauled by truck to a timber mill.

In the cooler months following harvesting, post-harvest burns are carried out to promote regeneration and reduce the fire hazard.

To ensure compliance with regulations, harvesting operations are continually supervised and monitored by Forests NSW. Supervising forest officers oversee operations, mostly on a daily basis, and write fortnightly audit reports for the regional harvesting forester.

The harvesting forester also makes regular inspections. To ensure the system is working, Forests NSW Forest Management Unit formally audits a random selection of operations in each region of the state. The external regulatory authorities, such as the Department of Environment and Climate Change also carry out random inspections.

Where breaches of conditions occur, penalties are imposed on the licensees involved. These may range from official warnings or fines, for relatively minor offences, through to legal action by external authorities. However, effective management of operations and training and supervision by Forests NSW minimises incidences of non-compliance with operational conditions.

References:

1. Regional Forest Agreements for North East (2000), Southern (2001) and Eden (1999), NSW Government & the Commonwealth of Australia.
2. Ecologically Sustainable Forest Management Plans (ESFM) for Eden, (2005), Lower North East (2005) and Upper North East (2005), South Coast (2005) and Tumut (2005), Western (2008), Riverina (2008)
3. Forestry and National Parks Estate Act 1998 (including the Integrated Forestry Operations Approvals), NSW Government
4. Managing our forests sustainably: Forest Management Zoning in NSW State Forests, 2000, State Forests NSW
5. Forest Practices Code for Native Timber Harvesting, 1998, State Forests of NSW
6. Forests NSW Social, Environmental and Economic Report 2007-08 (Seeing Report) 2008, Forests NSW, www.dpi.nsw.gov.au/forests

Further Information

Forests NSW Information Centre
Cumberland State Forest
95 Castle Hill Rd,
West Pennant Hills NSW 2125

PO Box 100
Beecroft NSW 2119
Ph: 1300 655 687 or (02) 9871 3377
Fax: 02 9872 6447
email: cumberland@sf.nsw.gov.au
website: www.dpi.nsw.gov.au/forests

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Disclaimer: The information contained in this publication is based on knowledge and understanding at the time of writing (October 2008). However, because of advances in knowledge, users are reminded of the need to ensure that information upon which they rely is up-to-date and to check currency of the information with the appropriate officer of New South Wales Department of Primary Industries or the user's independent adviser.

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Use the fact sheet 'Timber harvesting in native State forests' to answer the questions below.

Questions marked with * require a personal response or further research.

Q1 *What is the aim of native forest management?*

Q2 *What is meant by natural values and services to the community? **

Q3 *Define Ecologically Sustainable Forest Management (ESFM).*

Q4 *What is a harvesting plan and how is it created?*

Q5 *What are royalties?*

Q6 *What is done to minimise the environmental effects of timber harvesting?*

Q7 *Why are timber harvesting operations regulated? **

Q8 *How is harvesting carried out?*

Q9 *When and why are harvesting sites burnt?*

Q10 *Who ensures compliance with regulations for timber harvesting?*

Q11 *What happens if conditions for harvesting are breached?*
