

9. Forestry

Traditionally, the term forestry has been used to describe a science which deals in the management of forest areas for the maximum long term benefit of the community.

Management objectives provide not only for the tangible forest products such as timber, but also for recreation, protection of soils and watersheds, fire protection and preservation of habitats for flora and fauna.

In this chapter, only one aspect of forestry will be dealt with, that being the planning and harvesting of forest products. These products include timber for sawn wood, poles, posts, paper pulp and minor forest products including firewood and honey.

History of Forest Production

Hardwood Forests

Before European settlement, all of the study area was covered with forests and woodland. Presently, only 34% remains forested, the balance having been cleared primarily for agricultural purposes. Most of the forested area is public land, although there are significant areas of forested private land. (Figure 9.1).

The gold boom of the 1850's and 1860's brought the first heavy demand for forest products, and lower foothill forests were ruthlessly exploited. Similar uncontrolled logging, particularly in the forests near Broadford provided timber for the rapidly growing city of Melbourne.

The irregular boundaries of much of the present forested public land of the foothills reflects the haphazard nature in which forests were utilised during earlier times.

The forests of the mountain areas largely escaped the exploitation of the gold rush and land settlement. Timber from the high altitude ash forests had been used for palings and shingles since the earliest days of settlement in the area, but difficulties in drying and seasoning the sawn timber made them unpopular for milling.

From about 1910, techniques for proper seasoning of ash timbers were developed. Sawmills and associated settlements then appeared in the mountain forests in the southern parts of the study area.

In these forest-based sawmills, logs and sawn timber were carted on tramways, which ranged from wooden rails and horse drawn trucks to more elaborate steel tramlines with steam locomotives. Logging of the huge ash trees in the steep country was often beyond the ability of horses and bullocks, and large stationary steam winches were introduced.

The disastrous fires of 1926 and 1939 killed much of the remaining mature Mountain Ash and Alpine Ash forests. Many of the forest-based sawmills and settlements were burnt out, in many cases with tragic loss of life. After the major fires of 1939, a Royal Commission determined that sawmills had to be relocated outside the forest. An extensive salvage operation was undertaken to recover some of the burnt ash trees, and continued until the late 1940's, when it was stopped to avoid damage to regrowth forests. However, the salvage operation was claimed to be a major success, for in the ten years to 1949, 4.5 million cubic metres of high quality ash timber was salvaged.

As the salvage operation scaled down and the demand for timber in the post-war housing boom increased, new areas further to the east were opened up for logging operations.

Almost all of the mature ash resource in the study area available for sawmilling has not been cut. The very extensive ash regrowth forests, now more than 45 years old, are a dominant feature of the high rainfall areas in the south-east.

Future sawmilling operations in the study area will rely substantially upon these extensive areas of regrowth mountain forests resulting from the 1939 fires (Plate 9.1).



Plate 9.1 Potential regrowth of Alpine Ash following the 1939 fires.

Softwood Forests

The need for softwood timber became apparent early in the state's history, and the potential for Radiata Pine plantations in supplying timber became obvious as early as the 1850's. Radiata Pine proved to be an outstanding success on a range of soil types and climatic conditions.

Softwood plantations, consisting mainly of Radiata Pine cover 8,831 hectares of public land in the study area, in five major plantation blocks.

The majority of these plantations were established in the period 1969-79 with 4,656 hectares being planted. There has been no new plantations established in the study area since 1979.

The oldest plantation is at Narbethong where there is 237 hectares of Radiata Pine, planted mainly in the 1930's.

In addition to the softwood forests on public land, there are 2,900 hectares of privately owned softwood plantations scattered throughout the study area.

The largest of the privately owned plantations is Cathedral Valley Softwoods at Taggerty, covering an area of 512 hectares.

Forest types and timber products

The mountain forests, containing extensive areas of Alpine Ash and Mountain Ash occur in the south of the study area (Marysville, Toolangi, Mount Disappointment). Typically, these forest grow in pure stands of even age, and yield very high volumes of timber per hectare. This, together with their fast growth rates and sawn appearance, make them some of the most important commercial timbers in Australia.

The ash timbers are also exceptionally good for paper making, and significant volumes of pulp size timber is extracted from forest areas to pulp mills, mainly to the Australian Paper Manufacturers (A.P.M) at Maryvale.

At elevations below the ash eucalypts, there are significant areas of mixed species forests, so called, because in any particular area of forest, there is generally a mixture of eucalypt species. Mixed species forests generally grow at elevations below 900 metres where annual rainfall exceeds 1100 millimetres and are mainly restricted to the south of the study area.

The most important commercial species are Messmate, Mountain Grey Gum and peppermints.

Although growth rates and volumes per hectare are generally lower than for mountain forests, the extent and accessibility of mixed species forests make them very important commercially.

The mixed species forests produce sawn timber for house framing and a wide range of general construction purposes. They are also utilised for a variety of round-wood products including posts and poles.

Current Production in the Study Area

The study area is one of the most important timber producing areas in Victoria. There is an extensive ash regrowth resource in the southern portion, along with commercially important ash and mixed species forests.

Sawn Timber

The 1985/86 annual cut of hardwood sawlogs from public land in the study area (including ash species and mixed species sawlogs) was about 123,000 cubic metres. This represents about 12% of the States output. About 92,000 cubic metres or 75% of the total hardwood sawlogs taken from public land ash species, the remainder being from mixed species forests.

Almost all the ash timber being supplied to sawmills within the study area is either 1926 or 1939 regrowth. The timber from these ash forests, along with the timber from the lower elevation mixed species forests, are supplied to sawmills at Alexandra, Marysville, Healesville, Murrindindi and Broadford.

Mature mixed species forests are very limited within the study area. Most of the mixed species forests have been cut over on a selection basis for many years. In most cases, areas now being logged have been cut over at least once before. The amount of produce available from these forests will diminish over the next ten years.

The majority of softwood plantations are too young to yield sawlogs, except for some of the older blocks such as the Narbethong plantation.

The Narbethong plantation is currently being utilised for sawlogs with an annual allocation of 3,750 cubic metres. This material is currently processed at a sawmill in Narbethong.

Pulpwood

The other major timber produce from forests within the study area is pulpwood, used for paper products.

This pulpwood is supplied to Australian Paper Manufacturers from logging operations in the Toolangi, Marysville and Alexandra areas. The operation of removing pulpwood from forest areas is done in conjunction with sawlog operations.

In this way, poor quality timber not suitable for sawlogs can be utilised as pulpwood, leading to considerable improvement in the management of commercial forest areas.

Extraction of pulpwood can lead to a more complete utilisation of wood on areas being logged and more economical and satisfactory regeneration of hardwood forests.

The majority of this pulpwood is rated 'A' class pulpwood (ie. Pulpwood from ash forests). No pulpwood is taken from operations in the Broadford area, and very little pulpwood is supplied to A.P.M. from mixed species operations.

Minor Forest Products

Minor forest products include firewood, round timbers and honey production. Firewood collection in State Forests is increasing. Most of this collection is for private use, although an increasing number of commercial operators are looking to the forests for their supplies.

Round timbers for farming use are supplied on a demand basis. The level of cut is low and it is not envisaged that this will increase significantly.

Permanent or temporary bee sites are occasionally used. The more important sites are on smaller crown land blocks containing box and gum eucalypt species. The level of use is generally low.

Future Timber Supply

It is generally agreed that the amount of timber available from mixed species forests will diminish over the next ten years.

However, it is recognised that the regrowth ash of the mountain forests (Plate 9.2) and softwood plantations have the potential to support a steadily increasing cut of sawlogs and to provide a basis for the development of new mills and industry. The Timber Industry Enquiry has recently released its report which recognises the potential of the Centra Highlands area and its ash regrowth to provide sawlogs for many years into the future.

However, the Department of Conservation, Forests and Lands has argued that if the ash regrowth resource is to realise its full potential, any increase in the rate of harvesting should be delayed to permit improvement in the size and quality of logs available from this resource.

Regardless of when expansion is to occur, the fact remains that vast quantities of ash timber are potentially available for hardwood production in the south and south-east of the study area. Most of the softwood plantations are insufficiently mature to be harvested for sawlogs at the present time, with the majority of plantations being less than 20 years of age. By the year 2000 much of this resource will become available for utilisation.

Predictions of future demand for timber and timber products are based on many variable factors. It is not surprising therefore, to find that most forecasts of future demand are in conflict.



Plate 9.2 Transport of harvest logs from the Rubicon State Forest, Alexandra.

Table 9.1 1985/1986 Sawlog allocation for hardwood and softwood forests

Locality	Forest Areas	Log Allocations (Cubic Metres)				Conversion Location
		Ash Species	Mixed Species	Softwood	Total	
ALEXANDRA	Blue Range State Forest Rubicon State Forest Black Range State Forest	26,000 (Mainly 1939 regrowth)	18,000	-	44,000	Alexandra Marysville Murrindindi
MARYSVILLE	Black Range State Forest Marysville State Forest Rubicon State Forest (Big River) Mt Margaret State Forest	42,000 (Mature, 1926 and 1939 regrowth)	-	3,750	45,750	Marysville Healesville St. Fillans
TOOLANGI	Toolangi State Forest Mount Robertson	24,000 (1926 and 1939 regrowth)	4,750	-	28,730	Toolangi Healesville
BROADFORD	Mount Disappointment State Forest Tallarook State Forest	*450	*7,500	-	7,900	Broadford Whittlesea
					126,430	

Source – Department of Conservation, Forests and Lands

*Prior to fires of NOVEMBER 1982, which resulted in a large scale salvage operation in ash forests.



Plate 9.3 Harvesting of Radiata Pine from a small soft wood plantation.

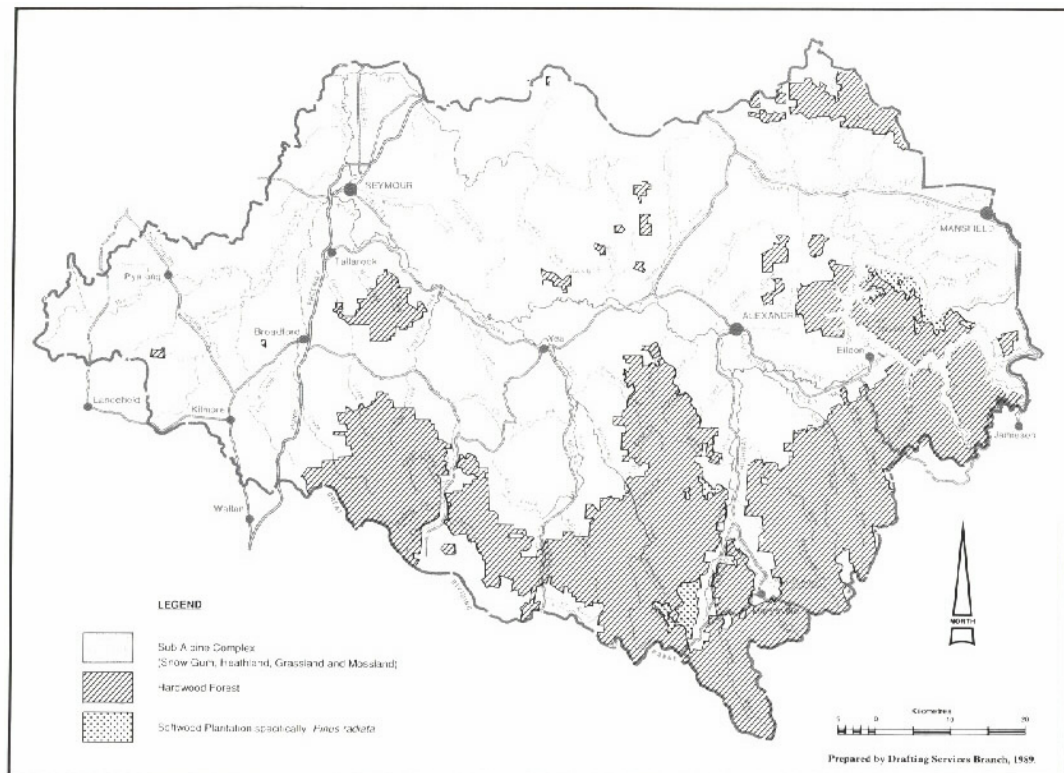


Figure 9.1 The principle forested areas incorporating public and private land.