



Annual Harvesting and Regeneration Report 2018/19

Submitted to the Secretary of the
Department of Jobs, Precincts and Regions

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Introduction and Summary

The Annual Harvesting and Regeneration Report has been developed by VicForests to provide the Secretary of the Department to Jobs, Precincts and Regions (DJPR) information and data on VicForests Timber Harvesting Operations in State forest for the 2018/19 year. This report also demonstrates how VicForests has met its obligations under section 15 of the *Sustainable Forests (Timber) Act 2004*, where VicForests must carry out its functions in accordance with the Allocation Order.

The Allocation Order (AO) is made by the Minister for Agriculture under Part 3 of the *Sustainable Forests (Timber) Act 2004*.

The objectives of an AO are to:

- Allocate specified timber resources in State forests to VicForests for the purposes of harvesting and selling, or harvesting or selling timber resources;
- Permit VicForests to undertake associated management activities in relation to that allocated timber and in the areas to which the order applies (e.g. construction of access roads, regeneration activities, thinning and monitoring); and
- Specify relevant conditions and limitations (e.g. minimum planning and reporting requirements, and the maximum five-year harvest area limits)

The current AO is the Allocation (Amendment) Order 2019 (AO 2019), published in the Victorian Government Gazette No S 153 on 24 April 2019, which updated provisions set out in the Allocation Order 2013 and the subsequent 2014 amendment.

This report specifically addresses Clause 10(7) of the Allocation (Amendment) Order 2019, where VicForests *must submit an annual report to the Secretary to DJPR by 30 September each year describing the area of timber harvested and regeneration results for the preceding financial year for Ash and Mixed species forest stands as described in Table 1 of the AO. The report must include data demonstrating how VicForests is complying with the five year harvest area limit. The reporting period will be 1 July to 30 June annually.*

This report is the annual process to report the area of harvest, regeneration results and to demonstrate compliance with the 5-year harvest limits imposed by the AO 2019. The 2018/19 report represents the first year in the second five-year period set out in the Allocation Order. In addition to these requirements, VicForests has included an annual summary of other authorised activities undertaken in 2018/19.

In 2018/19, VicForests undertook harvesting operations in 224 Timber Release Plan (TRP) coupes (excludes roadline improvement and roadline construction coupes), attributing 810 hectares of net harvested area to the Ash forest type and a 1,753 hectares of net harvested area to Mixed Species forest type from their respective 5-year area limits. A total of 378 hectares comprised solely of stand tending activities such as thinning or single-tree selection silviculture.

This is the first year of the current 5-year period and VicForests has harvested 6% of the Ash Forest 5-year area limit and 2% of the Mixed Species Forest 5-year area limit. These figures are well below the maximum 5-year harvesting limits and demonstrate VicForests' compliance with these limits.

VicForests also undertook harvesting operations in 75 Timber Utilisation Plan (TUP) coupes, with an operational footprint of 973 hectares. Coupes on the TUP are not harvested under the AO, rather VicForests issues Forest Produce Licences that authorise the harvesting operations in these areas.

In undertaking our annual regeneration responsibilities, VicForests proposed for finalisation a further 2638 hectares of net harvest area, comprising 187 coupes assessed as being successfully regenerated or otherwise stocked.

A handwritten signature in blue ink, appearing to read "Nathan Trushell".

Nathan Trushell
Chief Executive Officer

Objectives

The objectives of the VicForests Annual Harvesting and Regeneration Report are to provide information on:

1. VicForests' area harvested in 2018/19;
2. A summary of VicForests' other authorised activities undertaken in 2018/19.
3. VicForests' compliance with the Allocation Order 5-year harvest limits;
4. VicForests' regeneration results for 2018/19; and

1. VicForests Harvested Area 2018/19

1.1 Operations authorised by the AO

The majority of VicForests Timber Harvesting Operations in the east of Victoria are authorised by the AO.

The 2019 AO amendment was gazetted on 24 April 2019. It defined the Allocated area to be the area of land identified by the spatial data layer certified by the Secretary to DJPR on 15 April 2019 known as 'VicForests_Allocation_Apr2019' and stored in the Victorian Spatial Data Library. Prior to this the AO required VicForests' compliance with the Code of Practice for Timber Production 2014 and with the Forest Management Zoning scheme established pursuant to applicable forest management plans. There was also a map displaying the extent of these allocated stands included as Appendix 1 to the Allocation Order.

Harvesting in the 2018/19 season was undertaken under both the AO 2014 amendment and then the AO 2019 amendment. For the purposes of this report the harvested area has been assessed against the VicForests_Allocation_Apr2019 spatial layer. This spatial layer contains errors due to the exclusion of areas such as non-eucalypt stands from the allocated area.

In order to address these errors, following the gazettal of the AO 2019 amendment, DELWP issued a Forest Produce Licence that authorised timber harvesting operations within areas of State forest available for timber harvesting but excluded from the AO due to errors or omissions or a change to Forest Management Zones. A special condition of the licence was that any area of State forest harvested under this licence, when combined with the area of State forest harvested under the AO 2019, must not exceed the five-year harvest limit specified in Table 1 of the AO 2019. There was no area harvested using this FPL in 2018/19.

Coupes commenced prior to the production of this spatial layer and the gazettal of the AO 2019 amendment were marked and harvested in accordance with the Code and to the FMZ spatial layer, land tenure or natural feature in the field. When this harvesting is overlaid against the new AO 2019 spatial layer some small areas fall outside the defined stands (6.79ha). These areas have been summarised in the table in Attachment 3. These areas have been assigned to either Mixed Species or Ash and included in the five year harvest limit check and the harvest area statements.

Harvesting that took place between the gazettal of AO 2019 and 30 June 2019 excluded all undefined stands from the harvest area.

1.2 Harvested Area authorised by the AO

VicForests has collated the harvested area by Clearfell, Seed-Tree and Regrowth Retention silviculture systems. These silviculture systems lead to a requirement for the harvested area to be regenerated.

Table 11 outlines the area of timber harvesting undertaken by VicForests during the 2018/19 year, by silviculture system and by forest stand type.

Table 1 2018/19 Net Harvest Area (ha) by silviculture system and forest stand type

Forest Stand Type	Clear felling	Seed-Tree	Regrowth Retention Harvesting	TOTALS
Ash	472.4	119.9	218.0	810.2
Mixed Species	141.7	1591.7	19.5	1752.9
TOTALS	614.1	1711.5	237.5	2563.1
Notes:				
<i>This data is sourced from VicForests 2017-18 Harvesting History Shapefile – supplied as attachment 1 with this submission.</i>				
<i>The forest stand type has been determined using the spatial file "VicForests_Allocation_Apr2019", as defined in the AO 2019 Amendment.</i>				

1.3 Other Authorised Activities

This section outlines associated management activities undertaken by VicForests during the 2018/19 year as authorised within Clause 8 of the AO 2019, which includes activities such as seed collection and stand-tending.

1.3.1 Stand Tending

Forest stand tending incorporates activity undertaken to manage or manipulate a forest stand while continuing to let the stand grow. Table 2 shows the net areas of stand tending activity undertaken by VicForests during the 2018/19 year.

Table 2 The area (ha) of stand tending activities by forest stand type undertaken in 2018/19.

Forest Stand Type	Thinning from Above	Thinning from Below	Single-Tree Selection	Firewood, Fallen	TOTALS
Ash	-	16.6	23.9	-	38.9
Mixed Species	-	151.1	185.5	0.8	334.7
TOTALS		167.6	53.4	0.8	377.9
Notes:					
<i>The data in this table is sourced from VicForests' 2017-18 Harvesting History Shapefile, which is included with this submission.</i>					
<i>The forest stand type has been determined using the spatial file "VicForests_Allocation_Apr2019", as defined in the AO 2019 Amendment.</i>					

1.3.2 Seed Collection

Seed collection is undertaken to maintain adequate seed-stock to facilitate site establishment of harvested areas.

Table 3 shows the amount of seed collected by VicForests during the 2018/19 year by forest type and method of collection.

Table 3 Seed collection by species group completed by VicForests during 2018/19.

Forest Stand Type	Seed Collection Amount (Kilograms)		
	Ground Collection	Climbing	Total
Ash Species	127.3	543.3	670.6
Mixed Species	471.8	786.2	1257.9
TOTAL	599.1	1329.4	1928.5
Notes:			
<i>The data in this table is sourced from VicForests' Seed-bank database.</i>			
<i>All figures are in kilograms.</i>			
<i>Ash species includes Alpine Ash, Mountain Ash and Shining Gum. All other species are considered as mixed species.</i>			

1.4 Operations authorised by a Forest Produce Licence

VicForests has collated areas harvested by licensees for the 2018/19 financial year. VicForests has been delegated powers to issue licences to authorise the harvesting of these areas, mostly in western Victoria. A summary of area (in hectares) by silvicultural system and forest type is provided in the table below. This information is provided in the attached spatial layer.

Many coupes had multi-stage treatments, where there have been multiple overlapping operations using the same or different silvicultural systems in the one season (eg Single tree selection followed by Firewood - fallen) The areas shown below are the total of each individual operation and include areas that have been counted more than once.

Due to these multi-stage treatment, the actual footprint for the operations reported below was **973.1 ha**.

Table 4 2018/19 Net harvest Area (ha) by silviculture system and forest stand type

Forest Type	Stand	Firewood - fallen	Group/ gap Selection	Seed-Tree	Single tree selection	Thinning from Above	Thinning from Below	TOTALS
Ash					1.3			1.3
Box Iron-Bark		37.6			16.8	45.7	273.8	373.9
Coastal Mixed Species							3.3	3.3
Foothill Mixed Species		5.8	7.8		8.1		105.3	127
Mountain Mixed Species				4.7	19.1		17.7	41.4
River Red Gum		7.7			206.2	136.2	372.9	723.1
Sugar Gum Plantation						1.1	2.5	3.7
TOTALS		51	7.8	4.7	251.5	183	775.6	1273.6

2. AO five-year harvest area limits

The AO five-year Harvest Area limits have been assessed against the net harvested areas from the 2018-19 season. This has been done using the HH_201819 spatial layer provided. This is the area harvested using each relevant silviculture system broken down into Ash and Mixed Species forest stand types as designated by the VicForests_Allocation_Apr2019 spatial layer.

Clause 8 of the AO 2019 permits VicForests to carry out associated management activities in relation to allocated timber. Any area in which timber is harvested, incidental to any associated management activity, is not included in the relevant five-year harvest limit. These associated management activities include tending of forest stands (e.g. thinning, road construction and seed collection). These activities are reported in section 1.4.

The net Harvested Area is the area measurement that is used for comparison with the five-year harvest area limits listed in the AO. The five-year harvest limit period is from 2018/19 to 2023/24.

All areas greater than 0.005ha that were harvested prior to the gazettal of the AO 2019, and are not defined by the new spatial layer, have been reported below in Table 4. These areas have been designated to either Ash or Mixed Species based on the forest type present. No harvesting outside the area defined in the AO spatial layer occurred between 24 April and 30 June 2019. Therefore, no area was harvested using FPL0000012 up to 30 June 2019.

Table 5 indicates that, at the end of the 2018/19 financial year, a total of 810 hectares had been attributed to the Ash Forest 5-year area limit and 1,753 hectares was attributed to the Mixed Species 5-year area limit. This is the first year of the five-year harvest area limit from 1 July 2018 to 30 June 2023. Table 4 demonstrates VicForests' compliance with the 5-year limit.

Table 5 Compliance of 2018/19 harvest area with five-year harvest area limit by forest stand type

Forest Stand Type	AO Five-year harvest limit (Hectares)	2018/19 Harvest Area (Hectares)	2018/19 Undefined Harvest Area (Hectares)	Cumulative AO Area (Period July 2018-July 2023) (Hectares)	% AO 5-Year Harvest Limit Utilised
Ash	13,700	809	1	810	6%
Mixed Species	70,500	1,752	1	1,753	2%

Notes:

The area of harvest operations to be included in the comparison with the five-year area limits in the AO are; clear-fell, clear-fell salvage, seed tree (includes retained over-wood), regrowth retention harvesting and uneven-aged silviculture methods.

Thinning type harvesting is considered tending operations and are not included in this comparison with the AO five-year harvest limits as specified in Clause 11 of the Allocation Order 2013.

The total area of a coupe is tallied towards the five-year area limits in the Allocation Order when harvesting first commences in that coupe. Where timber harvesting occurs over more than one year or over more than one 5-year period of the AO, the AO Coupe Area will be tallied to the first year and first period in which harvesting first commenced.

The forest stand type has been determined using the spatial file "VicForests_Allocation_Apr2019", as defined in the AO 2019 Amendment.

3. Annual Regeneration Results

Successful regeneration of a coupe is termed 'coupe finalisation' and can only be demonstrated when the entire net harvested area of a coupe has been adequately re-stocked with seedlings, usually established by sowing seed after the completion of a regeneration burn.

Additional area is successfully regenerated each year, but coupes are only reported when the entire net harvested area has been regenerated.

The annual regeneration program consists of preparing sites where timber harvesting has occurred (site preparation), the establishment of eucalypt seedlings across the net harvested areas (site establishment) and a series of seedling stocking surveys to measure regeneration success.

Coupes that have been surveyed and demonstrated to have adequate stocking of the eucalypt species that were present prior to timber harvesting are then nominated for coupe finalisation. Coupes nominated during 2018/19 are shown in Table 5.

3.1 Coupes Nominated for Coupe Finalisation

Table 6 VicForests' coupes nominated for finalisation during 2018/19.

Coupe Types	Even-Aged Coupes	Thinning Coupes	Roadline Coupes	Un-harvestable	TOTALS
Number of Coupes Finalised	174	7	5	1	187
Gross Coupe Area Finalised (ha)	6058	401	82	21	6561
Net Area Harvested and Finalised (ha)	3351	222	2	0	2638
Notes: <i>Un-harvestable – This silviculture listing refers to a coupe that commenced but could not proceed due to excessive rock making the construction of a landing impossible. There is no net harvest area associated with this coupe.</i>					

Additional information on coupes which VicForests has nominated for finalisation in 2018/19 has been supplied in attachment 2 - *VicForests 2018-19 Coupe Finalisation list*.

Corrections to previous VicForests' Annual Harvesting and Regeneration Reports

VicForests' has identified some immaterial errors within previous harvesting history year data that will not affect VicForests' reported compliance with the Allocation Order area limits. These errors will be amended and the updated data will be provided to the Secretary of the Department of Jobs, Precincts and Regions when completed.

Attachments

The following attachments also form part of VicForests' Annual Harvesting and Regeneration Report (as previously indicated):

1. VicForests' 2018-19 Harvesting History Geodatabase file - HH_201819.gdb
2. VicForests' 2018-19 Coupe Finalisation List
3. Undefined Forest Stand Harvest Area table