



# Parliamentary Inquiry into VicForests' Operations

VicForests' Submission

30 May 2017

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## 1. Introduction

The Legislative Council's Standing Committee on the Economy and Infrastructure is holding an inquiry into VicForests' operations. The Committee will report its findings and recommendations to the Legislative Council by 31 July 2017. The inquiry will in particular examine:

1. Compliance with VicForests Utilisation Standards, with specific reference to log grading procedures, sawlog preparation and coupe utilisation standards;
2. Economic and environmental loss that is attributable to poor compliance;
3. Alternatives to the current utilisation standards that could deliver improved economic, social and environmental outcomes;
4. VicForests' modelling scenarios around past, present and future supply levels of commercial timber; and
5. VicForests' business practices with specific reference to its approach to customers and any disputes, complaints or investigations.

Given the tight timelines, VicForests has had limited time to prepare the following submission, which is intended to assist the committee in undertaking this inquiry.

VicForests will also attend a hearing before the committee.

## 2. Background

VicForests is a Victorian State-owned business responsible for the sustainable harvest, regeneration and commercial sale of timber from Victoria's public forests on behalf of the Victorian Government.

VicForests harvests approximately 3,000 hectares of native forest in Victoria each year, under strict environmental regulations. The timber harvested is used to produce high-quality furniture, flooring and other building materials, pallets, as well as quality writing and office paper.

Sustainability is a key component of our operations. Following harvesting operations, all areas are regenerated to ensure forests re-establish and are available for use by future generations. The seeds used in forest regeneration are source locally, to ensure that the trees that grow back match the mix of species that existed on the site prior to harvesting.

Once the regeneration is established, ongoing management of the site transfers back to the Department of Environment, Land, Water and Planning.

### 2.1 VicForests' Order-in-Council

VicForests was established on 28 October 2003 by Order in Council under the *State Owned Enterprises Act 1992* to “undertake the management and sale of timber resources in Victorian State forests on a commercial basis”.

In accordance with the Order in Council, the functions of VicForests are to:

- undertake the sale and supply of timber resources in Victorian State forests, and related management activities, as agreed by the Treasurer and the Minister, on a commercial basis;
- develop and manage an open and competitive sales system for timber resources; and
- pursue other commercial activities as agreed by the Treasurer and the Minister.

For the purpose of performing its functions, VicForests must:

- operate its business or pursue its undertakings as efficiently as possible consistent with prudent commercial practice;
- be commercially focused and deliver sustainable and value for money services;
- undertake its commercial activities in a manner which will maximise the long term economic returns to Victoria; and
- operate in a framework consistent with Victorian Government policies and priorities.

### 2.2 Allocation Order

The *Sustainable Forests (Timber) Act 2004* allows for an Allocation Order to be made by the Minister for Agriculture which vests property of described timber in VicForests.

The Allocation Order describes:

- the forest stands within State forest to which VicForests has access;
- the location of those forest stands;

- the total extent and available areas of those forest stands;
- the maximum area available for timber harvesting in any five-year period;
- any additional activities that VicForests is permitted to undertake; and
- the conditions with which VicForests must comply in carrying out its functions under the Allocation Order.

### 2.3 VicForests' Commercial Business

The Allocation Order describes broad forest types, locations and areas. It does not define the volume of timber which may be produced from this allocation.

Therefore, VicForests core commercial business is to:

- determine the quantity, quality and location of timber which may be sustainably harvested from the allocated forests;
- sell this timber in a competitive market to ensure the optimum return across all products available;
- engage forest contracting businesses to harvest and haul the sold timber to our customers;
- regenerate areas harvested to ensure Victoria's forests are maintained and available for use by future generations.

VicForests also undertake a range of planning and biodiversity functions in executing its functions.

What is critical in undertaking our commercial activities is gaining an appropriate balance between the timber available in the forest (standing trees), the capacity of contractors to harvest that timber, and the demand for timber from the industry. Complexity in this task arises because:

- the forest is highly fragmented and variable in its quality, size and operational difficulty;
- harvesting and haulage equipment varies in its suitability for harvesting in different forests;
- the needs of customers vary depending on their machinery and business model; and
- timber sales and forest contracting agreements are made well in advance of actual harvest, therefore requiring us to predict how these complexities will interplay.

### 2.4 VicForests' Resource Modelling Process

The following are excerpts from the Victorian Environmental Assessment Council's *'Fibre and Wood Supply Assessment Report'* from April 2017<sup>1</sup>.

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<sup>1</sup> On 23 November 2016, the Minister for Energy, Environment and Climate Change requested the Victorian Environmental Assessment Council (VEAC) to carry out an assessment of the viability of and capacity for, current volumes and potential fibre and wood supply areas in state forests in the Central Highlands, North East, Gippsland and East Gippsland regional forest agreement areas. The completion date for the assessment was 28 April 2017.

'Estimating the sustainable wood supply level for a forest estate the size of Victoria's State forests is an inherently complex process. The diversity of forests, topography, and various constraints that must be taken into account requires a hierarchical, multi-staged planning process. In summary, the four steps in the process are:

1. quantifying the resource. At its most fundamental level this involves an assessment of the area of harvestable forest and the volume of merchantable wood that occurs in that area;
2. identifying the forest resource and the application of specific constraints on harvesting;
3. identifying harvest units by grouping adjacent or nearby available areas, and addresses spatial issues such as coupe size and adjacency; and
4. developing a range of plausible timber supply options.

The final sustainable wood supply levels are then set based on an assessment of the modelled scenarios, commercial commitments and realities, and logistical considerations.

The complexity of this planning process limits the degree to which the public can understand or interpret how VicForests sets sustainable wood supply levels. Based on VEAC's assessment of the planning process, however, it appears that VicForests approach is a sound one. It uses industry-standard models to develop its strategic and tactical wood supply levels and has staff who are well-trained in their use and interpretation. The assumptions that underpin the various components of their modelling approach are both reasonable and appropriate and the calculations that they perform appear accurate.

While there are some areas where the process could be improved, overall the strategic wood supply modelling that VicForests conducts is rigorous and repeatable. This assessment of the quality of the Sustainable Wood Supply Model process employed in Victoria is not unique. Previous reviews have delivered similar assessments'.

## **2.5 VicForests' Timber Allocation and Sales Process**

VicForests undertakes a range of sales and allocation processes to ensure that timber products generated from harvesting operations are sold. Allocation processes generally occur well in advance of operations taking place.

In undertaking these processes VicForests aims to balance industry's need for long-term certainty with VicForests' need to manage medium to long-term timber supply risks. This results in VicForests entering into sales agreements with customers with a range of tenures, pricing, specific groupings of products, and various conditions. In most cases there are multiple customers who are allocated different volumes of the same grade and type of product.

In general, customers are required to undertake domestic processing of timber sourced from State forest. However, for the last three years, VicForests has sold low grade logs that were surplus to domestic requirements to customers who exported those logs unprocessed.

## **2.6 Harvest Process**

Understanding the harvesting process is important when considering questions regarding forest utilisation and log quality determination and distribution.

The key steps in the harvesting process include:

1. VicForests staff plan each harvest area (described as a coupe) considering a range of environmental, regulatory, operational and other constraints. The planning process culminates with the production of a coupe plan (including detailed maps) which defines how a coupe is to be harvested. VicForests staff also physically mark features (such as coupe boundaries and retained trees) in the forest so that the harvesting contractors (engaged by VicForests) are clear as to where and how they are to operate;
2. harvesting contractors build access roads and 'landings' so that timber produced can be processed and loaded onto timber haulage trucks and transported from the forest to mills;
3. trees are felled (generally using harvesting machines) as described within the coupe plan. When felled, the harvesting machine trims off the branches and the top portion of the tree;
4. the main stem of the tree is then pulled to the landing along a rough track known as a snig track;
5. at the landing the stem is debarked, assessed for quality and cut up into the various log products. This process (as described in the (attached) VicForests Utilisation Procedures) requires that the log is cut in such a way that it produces the largest volume of highest-grade products. Assessing log quality is a highly skilled process, and includes consideration of a range of defects which may occur: branches, rot, insect damage, spiral grain, log straightness, timber stain and gum veins;
6. logs that are graded as D grade sawlog or better are physically measured for diameter and length. The majority of E grade logs (the lowest grade of sawlog) and pulp logs (logs that are not sawlog quality) are sold by weight, and are not manually measured;
7. once log quality is determined, logs are stacked with similar-quality logs awaiting transport to various customers. The size of the landing limits the capacity of contractors to segregate every log quality and length;
8. a barcode is attached to each sawlog at the landing. The barcode number, as well as the log's grade and dimension are recorded in VicForests' accounting system. Each log is scanned as it is loaded on to the truck, to determine where invoices are sent.  
  
Each truck load of pulplogs is recorded with one barcode (because individual logs are not measured), and then weighed at the customer's destination.
9. VicForests issues haulage contractors with delivery schedules that specify which mills are to receive the logs produced from a coupe. Preparation of a delivery schedule requires consideration of the location of a coupe, when determining which customers will receive supply from that coupe. Logs of a specific grade may be delivered to a range of customers. In general, a specific log produced in a coupe is not automatically allocated to a specific customer.

It is important to note that the harvest and log production process is one of de-constructing an entire tree into varying log qualities and types. A tree (or a stand of trees) is not cut down for only one product – a range of products are created from that tree, with the aim of maximising the total value.



In general, each tree generates a range of products, as Figure 1 shows. This usually includes a portion of high-quality sawlog from the main trunk, lower-grade sawlog from higher up the trunk where few large branches occur, and low-quality pulp logs at the top of the trunk where there are many branches.



**Figure 1: Utilising a tree for timber production**



## **2.7 VicForests' Commercial Performance**

VicForests' commercial performance relies on the ability to manage complexity and risk to ensure that the maximum amount of product available from each harvest area is processed and delivered to the highest-value market.

There is no advantage to VicForests in:

1. delivering higher-value products as lower-value products because a lower financial return is generated; or
2. leaving saleable products in the forest because revenue is not maximised, and because any saleable volume left on site would contribute towards VicForests' fixed costs of planning, accessing, and regenerating the site.

From time to time, VicForests is challenged to balance the mix of log species and grades generated from a coupe with its sales commitments. To accommodate any short-term imbalances, temporary solutions are made to operational activities, including limiting the production of pulpwood.

However, if short-term imbalances extend in time, VicForests rebalances the system by selling additional or different products, sourcing additional or different contractors, or changing the forest type mix by harvesting alternative coupes.

## **2.8 Contract Management**

VicForests relies heavily upon our forest contracting workforce to harvest the forest, grade and segregate the products generated, and deliver those products to customers.

VicForests works closely with our contractors to ensure that there is a consistently high quality of utilisation and log grading to make sure that each harvest area is utilised in an optimum manner, and that customers receive the products which they are contracted to receive.

VicForests undertakes a range of regular in-forest and at-mill audits of contractor performance in relation to utilisation and log grading. These audits are used to inform contractor management including further training, coupe-specific guidance and contract performance management.

In addition, VicForests provides a monetary incentive to harvesting contractors to create high-value logs.

### 3. Response to Terms of Reference 1a and 1b

**1a: Compliance with VicForests' Utilisation Standards, with specific reference to log grading procedures, sawlog preparation and coupe utilisation standards**

**1b: Economic and environmental loss that is attributable to poor compliance**

This section of the submission provides a summary of log grading specifications, processes to monitor utilisation standards, and summarises the results of the monitoring processes.

#### 3.1 Log Grades

The current sawlog grading system has been in use since the late 1980s. It was implemented as part of the Victorian Government's 1986 Timber Industry Strategy and was designed to identify sawlog for its highest end-use value.

VicForests uses a standard set of product grade codes to identify the specified timber types for log buyers. These are set out in Table 1 below:

Product Group	Grade Code	Grade Name
Sawlog	B	B grade sawlogs
	C	C grade sawlogs
	D	D grade sawlogs
	U	Ungraded sawlog: D grade or better
	E	E1 grade sawlogs
		E2 grade sawlogs
Pulplog	H	High Quality (pulp)
	M	Medium Quality (pulp)
	L	Low Quality (pulp)
Other Timber	F	Dry (firewood)
	G	Green (firewood)
	P	Poles/Piles/Posts

**Table 1 - Log Grade Product Codes**

The sawlog grades are defined by a number of external features:

- diameter of the log;
- number of defective quarters;
- amount of pipe defect (rotten or absent wood from the centre of the log); and
- number of log quarters affected by various defects, such as gum veins, stain and sloping grain.

Sawlogs are also defined by tree species.

Pulplogs are identified only as ash species eucalypt or mixed species eucalypt (in some cases further identified according to fibre yield) and are weighed, not measured.

### **3.2 Log Preparation and Grading**

The Utilisation Procedures provide detailed instructions to harvesting contractors regarding log preparation procedures.

Once a tree is felled, the harvesting contractor makes the first cut at the sawlog/pulpwood interface (usually identified by log diameter or number of defective quarters). The top of the pulplog is cut at the minimum small-end diameter.

Once the sawlog is pulled to the landing, an accredited log grader prepares, grades and marks in accordance with the hardwood log grading specifications outlined in the Utilisation Procedures.

The procedures require the contractor to ensure that:

- specifications for log grades are not changed, unless permitted by a local grading rule, which is noted on the coupe plan;
- sawlogs are graded to maximise value;
- if an accredited grader is uncertain as to the grade of a borderline log then:
  - that log must be set aside for inspection and grading by a VicForests representative; and
  - the VicForests representative will grade and mark the log with a VicForests' brand signifying that VicForests take responsibility for the grade of the log.

Log lengths containing more than one grade are permitted provided grade lengths are clearly identified and recorded and each section of a multi-graded log is a minimum of 2.7m in length.

### **3.3 Compliance with log grading procedures**

VicForests' field foresters undertake regular monitoring of harvesting activities. During coupe visits, issues of concern in relation to aspects of log preparation, grading and measurement are raised with the contractor and resolution promptly sought.

At least once a month, the supervising forester is required to complete a Coupe Monitoring Record (CMR) which captures information covering safety, utilisation and environmental performance.

During these audits, a VicForests accredited log grader:

- checks approximately 3% of logs produced by a contractor over the year in accordance with the Coupe Monitoring Record (Harvesting) Instruction;
- paints and brands any logs they check with a VicForests hammer (this indicates VicForests accepts responsibility for any disputes and costs associated with the grade of the log);
- raises and documents (on the coupe diary) issues of concern with the contractor in relation to log preparation, grading and measurement, and seek resolution; and
- grades, paints and brands with a VicForests hammer any borderline logs set aside by the contractor.

Informal monitoring checks are also made on coupes from time to time, and provide incidental information regarding grading performance.

During the period 1/5/2016 to 30/4/2017 a total of 621 CMRs were completed, resulting in grade checks of over 6,200 logs.

### 3.4 Sawlog Customer Monitoring and Audit Loads

Sawlog assessment at a customer's delivery site only occurs when there is an identified need, which may include:

- the need to check grading consistency;
- a belief that a contractor is consistently under grading; or
- a repetitive problem with a contractor that needs to be rectified.

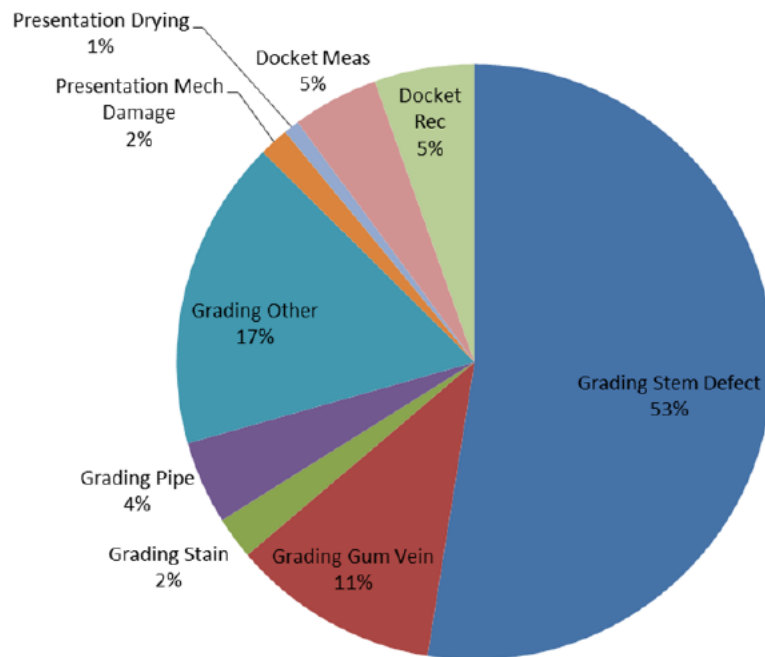
Logs may be re-graded or moved during a random check. This can be done if a customer requests a single log regrade using an 'Off Specification Notification Form' or VicForests requests a load for audit purposes.

The following process applies to the assessment of log quality disputes following delivery:

- within 5 working days of delivery a Customer must notify VicForests on an 'Off Specification Notification Form'. This form includes details of Contractor, Docket No and Disputed Log Number;
- on receipt of the form, VicForests has five working days to inspect the disputed logs;
- the assessment is undertaken by an Accredited Grader and documented;
- if an 'out of specification' log was branded with a VicForests' hammer (ie. VF brand), then VicForests takes responsibility for any costs associated with the change in grade;
- if an 'out of specification' log was graded by a Contractor, the contractor takes responsibility for any costs associated with the change in grade (note the contractor can dispute that the log is out of grade). If the grade has changed and:
  - the customer is still willing to take the log, the log will be deemed part of the customer's Annual Timber Intake. If any pricing or other adjustments are made it must be with the approval of VicForests.
  - the log is unacceptable to the customer and does not fit within the customer's contracted grades, then at VicForests' direction it will be the contractor's obligation to remove the log and pay for all costs associated with the removal (including any penalty costs to VicForests such as a reloading fee).
- Where log presentation is unacceptable, VicForests may request the contractor to complete log presentation to an acceptable standard at the customer's site.

Figure 2 provides an analysis of the reasons for the log specification changes at the Australian Sustainable Hardwood's Heyfield mill during this harvesting season. Over 50% of specification changes were due to stem defect, 11% gum vein, docket issues 10% and other grading issues 17%.

Note that the in 2016-17 (to 24 May 2017), VicForests has supplied well over 100,000 individual logs to ASH.



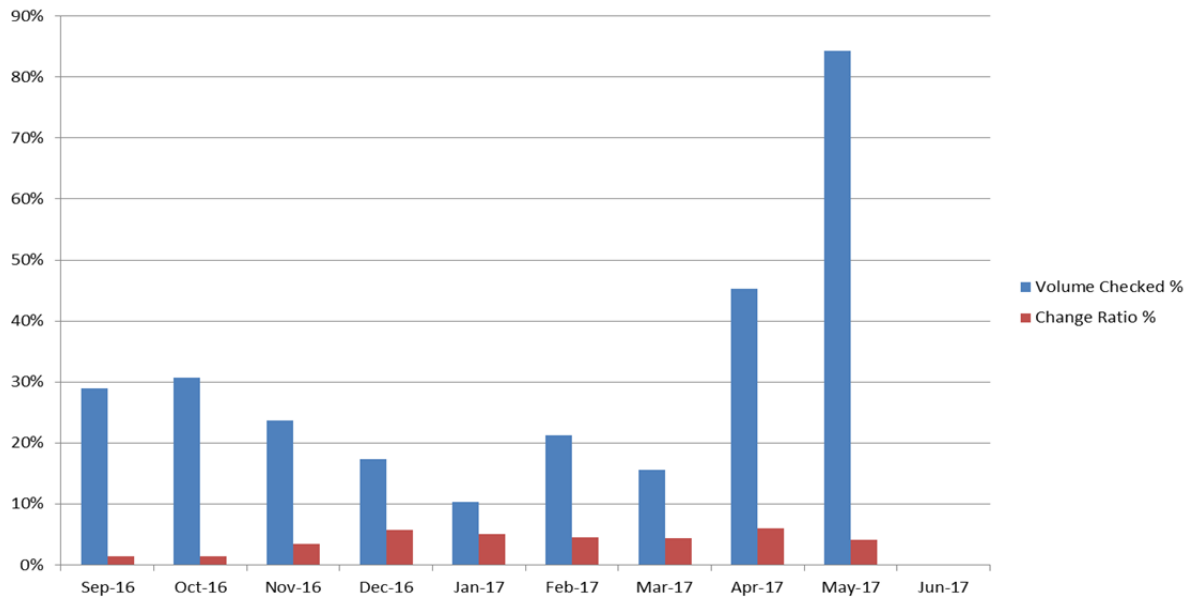
**Figure 2: Analysis of log specification changes at Australian Sustainable Hardwood's mill at Heyfield in 2016-17**

Table 2 shows that random checks by VicForests at ASH's Heyfield mill have resulted in the following grade changes:

	Checked %	Upgrade C to B	Downgrade B to C	Net Change
2014-15	2.8%	6.8%	0.8%	5.9% Upgrade
2015-16	1.4%	3.5%	4.7%	1.2% Downgrade
2016-17	2.4%	1.1%	4.4%	3.3% Downgrade

**Table 2: Changes to log grades at Australian Sustainable Hardwood's mill at Heyfield in 2016-17 following VicForests checks**

Figure 3 shows the percentage of logs checked by ASH at their Heyfield mill, and the percent changed. The percent changed aligns closely with VicForests' checks.



**Figure 3: Changes to log grades at Australian Sustainable Hardwood’s mill at Heyfield in 2016-17 following ASH checks**

### 3.5 Forest Utilisation

As discussed above, it is not in VicForests’ commercial interests to under-utilise the forest resource.

However, while not the norm, forest utilisation standards can change on occasions depending on:

- Location. Some coupes are located a long way from specific customers, making it un-economic for VicForests or the customer to transport logs to the customer’s processing facility. This issue applies particularly to low-grade logs (E grade or pulpwood) where the value of the log does not match the cost of transport;
- Markets. At various times, the market for a particular product can be buoyant or depressed. This has particularly been the case for pulpwood from East Gippsland operations. If no market exists, VicForests is unable to sell the timber. At other times, there may be a limit to the volume that can be supplied from a particular operation;
- The type of harvesting operation. Depending on the types of machines used on a coupe, it may be un-economic for contractors to pick up very small pieces of timber; and
- The specifications of customers. Some customers, particularly low grade log customers have very tight specifications regarding rot, charcoal and other defects. If VicForests does not have another customer for logs with those defects, they may be left on the coupe.

Due to the future decrease in ash sawlog production, VicForests is expecting that meeting pulpwood commitments will require a higher level of coupe utilisation from areas that in the past have had lower levels of utilisation, such as in far north-eastern Victoria.



VicForests undertakes residue surveys to identify the volume of un-utilised material on coupes.

Results of residue surveys undertaken recently in north-east Victoria and Gippsland identified 0.15% of sawlogs remaining on site and 2% of pulpwood. The amounts of and type of residue on each coupe varied by location, with the highest level in far north-east Victoria.

## 4. Response to Terms of Reference 1c

### 1c: Alternatives to the current utilisation standards that could deliver improved economic, social and environmental outcomes

Since the introduction of the sawlog grading system there have been some significant changes in the timber industry, as a consequence of:

- the contraction of the structural market due to global financial conditions and the erosion of market share and price from engineered wood products, and
- the increased mechanisation of sawlog production processes within the forest in response to the focus on OHS outcomes as well as efficiency and competitiveness.

Despite these changes, the sawlog grading system remains substantially unchanged since its introduction in the late 1980s. This is primarily due to the customers' understanding of what they are buying, and the value of that log grade. In addition, because some Timber Sale Agreements have a tenure of up to ten years, customers can be unwilling to change the log specification that applied when they originally entered into the agreement.

The terms and conditions of each Timber Sale Agreement require VicForests to consult with its customers regarding changes to the Log Grading specifications.

VicForests has entered into a number of engagement processes with industry, with the option given of changing the log grade definitions. None of these processes have resulted in any material changes to the definitions, because of customers' concern surrounding their ability to value a log with a different grade definition.

#### 4.1 Timber Industry Action Plan

The most recent formal and industry-wide engagement process was undertaken as part of the implementation of the 'Timber Industry Action Plan' in 2012.

A comprehensive engagement program was undertaken with industry representatives, following stakeholder concerns relating to log specifications and lengths, and sub-optimal value recovery, as well as VicForests' issues with the grading system, which included:

- sub-optimal log lengths produced and delivered to mills;
- the breadth of the C grade ash sawlog specification – C grade included logs suitable for both appearance output and structural output;
- the system was open to dispute due to the subjective nature of grading; and
- the labour intensive and time consuming grading requirements.

A number of options were raised and considered, including scope to move to sale by weight.

The three broad options that were developed through the industry consultation process were:

1. no change to specifications;
2. continue with existing grading, but include consideration of:
  - increase minimum lengths and diameters;
  - price for preferred lengths;
  - provide length allowance on all lengths; and

- reduce allowable sweep.
3. Modify grading system:
- Premium grade – all B and C with minimal gum vein;
  - Standard grade – rest of C and large D; and
  - Base grade – small D and E.

No consensus was achieved amongst industry participants regarding changing the system.

However, through the Request for Proposal process that VicForests conducted in 2013 for the purchase of both sawlog and residual log, prospective customers were permitted to request variations to the standard sawlog specification. The Request for Proposal process noted that VicForests would only consider such specifications where they were compatible with commercial risk, resource availability, logistical considerations and the Timber Sales Process 2013 allocation objectives.

## **4.2 Sale by Weight**

Some elements of the industry continue to advocate for the sale of logs by weight. The supply of logs by weight is more efficient than measuring individual logs, and is the method VicForests uses to sell products of specific grade, such as pulpwood, other residual logs and the majority of E grade sawlogs.

However, in a sale-by-weight system, the attributes of higher-quality logs may not be captured, as they are not individually measured. Therefore, a customer who receives a load of sawlogs (for a single price) will not know the range of qualities, unless they segregate the logs.

Also sale by weight would require some degree of value averaging where multiple sawlog grades are delivered to a single customer. This would make it more difficult to manage price variations across the product grades and sizes, introducing a degree of business risk.

Although there has been much discussion regarding sale by weight, VicForests' has not gained a consensus across all of our sawlog customers to move away from log measurement.

While individual log measurement is currently the only method of ensuring customers receive the quality of sawlog they are paying for, VicForests is open to considering other methods of sale.

## **4.3 Preferred Lengths**

As mills seek to increase their efficiency, they commonly seek a preferred log length (which varies by customer).

VicForests attempts to meet each customer's preferred length, by providing each contractor with a list of each customer's preferred length with the delivery schedule for each coupe.

However, VicForests is unable to commit to a broad-scale supply of preferred lengths because of:

- the need to maximise value recovery. VicForests aims to maximise the value recovery from each log, but if value recovery is not compromised, will supply a preferred length to a customer; and

- the need to balance the size of landings on coupes (to minimise soil compaction) with the number of different log stacks (by species, grade, and potentially length).

#### 4.4 Small-end Diameter

The original sawlog grading card had a small-end diameter of 25cm. This is now 30cm following consultation with industry.

One consequence of increasing the small end diameter has been the creation of two E grade log specifications. This has enabled VicForests to maintain value recovery as well as providing customers with the ability to adapt their processing systems for a more specific log diameter.

#### 4.5 Changes in Log Quality

The timber industry has adapted over time to the current type of log produced from harvesting operations. However, over time, changes to technology and demand have led to an acceptance of lower-quality logs. The transition to lower quality logs is occurring in East Gippsland and western Victoria, and is likely in the Central Highlands as supply decreases.

VicForests has recently undertaken engagement with a range of our customers regarding their view on future market trends, including how logs are specified and sold. This engagement noted:

- stakeholder feedback indicates log specifications and sales processes are a major, unresolved concern for some VicForests customers; less so for others;
  - sale by weight options are supported in principle by the major sawlog customers consulted;
  - there is general acceptance of aligning specified log lengths with preferred truck transport lengths; and
- there is ongoing industry consolidation and further reductions in availability of the ash forest resources are conducive to changes to:
- ongoing focus on cost efficiencies, e.g. streamlining grades, sales by weight; and
  - pursuing industry agreement (among smaller number of customers) on set log lengths.

Any significant changes will require industry-wide support, which, going by history, has not been easy to achieve. Significant changes have implications across the industry, from sawlog customers to pulpwood customers as well as harvest and haul contractors. In addition, the forward allocation of timber by specific species, grade and log specification and by different tenures increases the difficulty in introducing significant changes.

As the resource available for harvest and sale changes, VicForests will continue to work with industry around log specification to facilitate their work in processing a different quality and size mix of logs, and will also continue to meet the needs of multiple customers, each of whom have different preferences.

## 5. Response to Terms of Reference 1d

### 1d: VicForests' modelling scenarios around past, present and future supply levels of commercial timber

#### 5.1 Timber supply modelling

A key element of VicForests' activities is the determination of the volume of timber available for allocation and sale.

Estimating future timber supply levels for a forest estate the size of Victoria's State forests is an inherently complex process.

The key elements of determining timber supply levels are:

- the area of forest available for harvest;
- the volume of timber currently in the forest;
- the growth rate of the stands of trees currently in the forest;
- constraints to harvesting to forest stands or trees; and
- the type of harvesting system used, such as clearfell or selection harvesting.

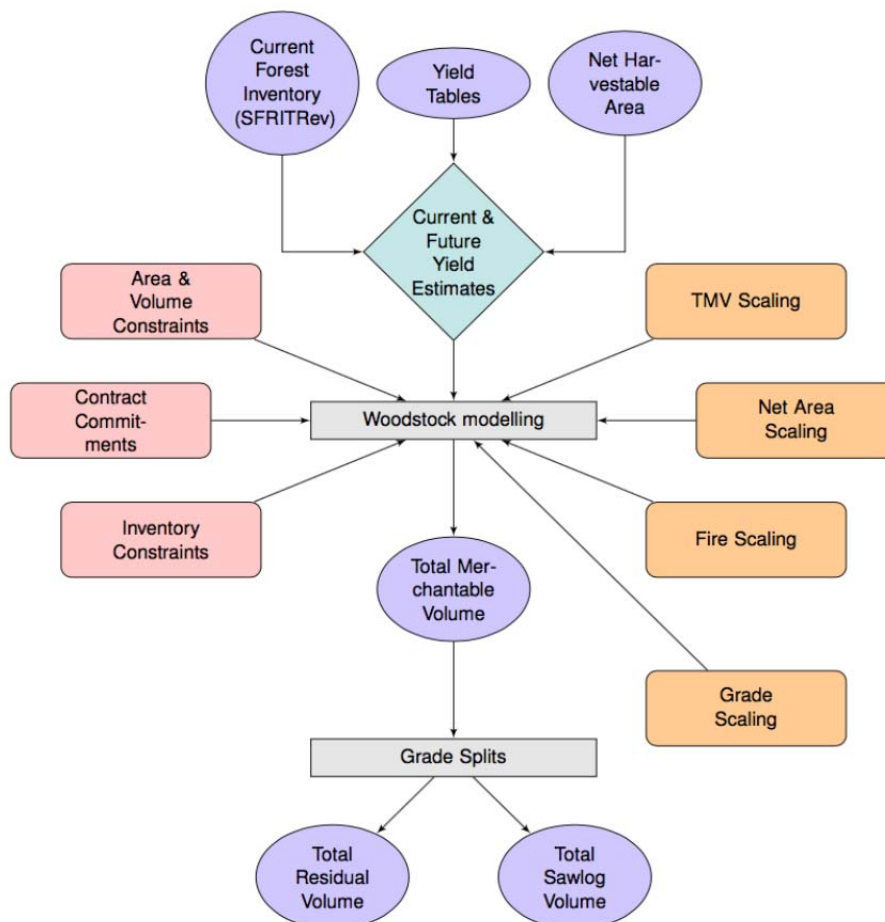


Figure 4: Data and constraint inputs into a timber supply model

As Figure 4 implies, the amount of data required to form a reasonable forecast of timber supply is substantial, as is the effort required to collect and manage this data. Complex computer models are needed to process the data and develop and analyse timber supply scenarios.

VicForests has a dedicated team that focuses on:

- maintaining and updating the base datasets required to develop timber supply forecasts, including the maintenance of field plots;
- maintaining a timber modelling system and associated software (VicForests uses 'Woodstock')
- undertaking timber supply modelling
- provision of a range of data.

The complexity of developing timber supply scenarios limits the degree to which the public can understand or interpret how VicForests sets sustainable wood supply levels.

Based on its assessment of VicForests' planning process in 2017, VEAC considered that VicForests' approach is a sound one.

'It uses industry-standard models to develop its strategic and tactical wood supply levels and has staff who are well-trained in their use and interpretation. The assumptions that underpin the various components of their modelling approach are both reasonable and appropriate and the calculations that they perform appear accurate.

While there are some areas where the process could be improved, overall the strategic wood supply modelling that VicForests conducts is rigorous and repeatable. This assessment of the quality of the Sustainable Wood Supply Model process employed in Victoria is not unique. Previous reviews have delivered similar assessments'.

## 5.2 2017 Resource Outlook

A key output of VicForests' timber supply modelling process is a Resource Outlook. VicForests' 2017 Resource Outlook identifies approximately 450,000 ha of State forest in eastern Victoria as available for timber production. Only the General and Special Management Zones within State forest are considered as available for future timber production. All protected areas (protected flora, fauna, historical and recreational sites, and any reserves additional to the permanent reserve network) and topographical attributes identified that meet *Code of Forest Practice for Timber Production 2014* such as steep slopes and streamside buffers are excluded.

VicForests' timber supply model determines the supply of timber products that may be generated from harvesting operations over a one hundred year time frame, but with greater detail for the first twenty years. The timing and availability of individual forests stands for harvest is dependent on attributes including age, species group, site quality and yield.

The modelling process also incorporates a number of spatial considerations to address additional operational planning complexities such as maximum opening sizes, green-up rules, salvage prescriptions and forest stand proximity and adjacency rules.



The volume of timber that can be produced from a forest stand in its simplest form is a function of the available area by the expected yield. The timber supply model does however incorporate a number of factors to improve the alignment of the predicted yields from forest stands to actual yields determined from actual forest operations which are monitored annually.

VicForests tests numerous timber supply scenarios that consider a range of market allocation and forest conservation strategies to inform the development of the Resource Outlook and future sales levels.

The 2017 Resource Outlook forecasts that 132,000m<sup>3</sup> of D grade and better ash sawlog can be supplied annually from the available State forest for the medium-term. This is a decrease of 88,000m<sup>3</sup> from the 2013 Resource Outlook. The decrease is due to a range of factors related to the protection of environmental values and changes to the regulations governing timber harvesting operations.

The volume of D grade and better mixed species sawlog per annum forecast to be available for timber production has decreased 17% from 120,000m<sup>3</sup> in the 2013 Resource Outlook to 100,000m<sup>3</sup> in the 2017 Resource Outlook. This decrease is mainly due to:

- improved timber yield data and analysis, particularly improved yield predictions based on actual yields
- a decrease of available area in some water catchments
- a decrease in available area due to reservations for Leadbeater's Possum.

Based on this Resource Outlook, VicForests is considering undertaking a medium-term allocation process for the volume of ash sawlog that will be unallocated as at 1 July 2017.

### 5.3 Previous Reviews of Resource Modelling Outputs

VicForests or external agencies regularly review the processes and data VicForests uses for timber supply modelling.

The following are excerpts from VEAC's 'Fibre and Wood Supply Assessment Report' from April 2017.

'Vanclay and Brack evaluated the Joint (VicForests and the (then) Department of Sustainability and Environment) Sustainable Harvest Level Statement (JoSHL) in 2008, and endorsed the sustainable timber supply modelling approach used by DSE and VicForests at the time. They concluded that, 'JoSHL is a robust process that should inspire confidence that the proposed timber harvest of up to 500,000m<sup>3</sup> year of D+ sawlogs is sustainable for the next 15 years, given the specified assumptions.'

Notably, their assessment was made in May 2008, nine months before the Black Saturday bushfires that would cause dramatic losses of ash forests in the Central Highlands and a significant reduction in the sustainable timber harvest levels—circumstances that could not have been foreseen during the JoSHL process.

In 2013 the Victorian Auditor-General's Office (VAGO) reviewed the management of Victoria's native forest timber resources. Amongst other things, this audit examined the accuracy and reliability of VicForests' sustainable harvest level estimate. It concluded that VicForests has developed an accurate and reliable approach to estimating the sustainable harvest rate, demonstrating its capability to manage the risks and the environmental, economic and social sustainability issues involved—in both the short and long term'.

In 2008, the JoSHL process estimated a sustainable harvest level of 497,000m<sup>3</sup> per annum for D+ sawlogs, of which 293,000m<sup>3</sup> per annum were D+ ash sawlogs.

In its 2013 Resource Outlook, VicForests estimated that the sustainable level of D+ ash sawlogs had decreased to 220,000m<sup>3</sup> per annum.

By late 2016 the sustainable harvest level of ash sawlog had decreased further to 175,000m<sup>3</sup> per annum of D+ ash sawlogs. Based on expected future regulatory impacts associated primarily with new Leadbeater's Possum detections, VicForests has further reduced its expectations resulting in a forecast sustainable harvest level of 132,000m<sup>3</sup> per annum of D+ ash sawlogs.

The decrease of 88,000m<sup>3</sup> per annum since 2013 is due to a range of factors related to the protection of environmental values and changes to the regulations governing timber harvesting operations including:

- 22,000m<sup>3</sup> reduction per year due to the impact (direct and indirect) of current measures in place to protect the Leadbeater's Possum;
- 23,000m<sup>3</sup> reduction per year due to the removal of areas which VicForests has assessed as unlikely to be harvested for a range of commercial and ecological forest management reasons; and
- 43,000m<sup>3</sup> reduction per year due to the expected future impact of measures in place to protect the Leadbeater's Possum.

## 6. Response to Terms of Reference 1e

### 1e: VicForests business practices with specific reference to its approach to customers and any disputes, complaints or investigations

VicForests' aims to be respectful in all commercial relationships, and for all agreements to operate effectively. VicForests maintains a number of processes that specify our approach to commercial relations.

Although every agreement VicForests enters into has a dispute resolution mechanism, as a principle, VicForests aims to resolve any issues before invoking the dispute resolution mechanisms. This includes disputes with contractors as well as customers.

#### 6.1 Timber Sales Agreements

Each Timber Sale Agreement contains standard clauses relating to dispute resolution.

In summary, formal disputes are to be resolved by:

- Informal resolution. Any dispute is referred to the chief executive officers or their nominees who are to confer at least once to resolve the dispute or to agree on methods of doing so.
- Mediation. Any dispute that is not resolved within five business days, the parties are to endeavour in good faith to settle the dispute by mediation administered by the Australian Commercial Disputes Centre.
- If the dispute is not settled by mediation, the disputed matters may be referred for expert determination. If the parties cannot agree on the Expert within seven days of agreeing to resolve the dispute by expert determination, Parties must accept the Expert as nominated by:
  - A person appointed by the President of the Institute of Foresters if the dispute is a forestry dispute.
  - The Chairman of the branch of the Institute of Chartered Accountants in Victoria if the dispute is a financial dispute.
- A dispute may also be submitted to final and binding arbitration under the Rules of Commercial Arbitration of the Institute of Arbitrators and Mediators Australian by one or more arbitrators appointed in accordance with those rules. Arbitration is more likely to be used to resolve disputes over compliance with terms and conditions.

#### 6.2 Customer Credit

VicForests maintains a policy that sets out the framework for the provision and management of customer debt. It supports the goal of VicForests managing its risk, costs and liquidity within the contractual terms agreed with VicForests' customers.

Potential bidders intending to participate in VicForests' sales processes are assessed for their credit worthiness (amongst other factors) as part of the qualification process. The purpose of capacity limits and requirements for securities are to ensure the integrity of bidding during an event and prevent irrational bidding. Capacity limits are embedded in the rules.

Once a sales agreement is executed and supply commences, at the start of each month VicForests issues invoices against each Timber Sales Agreement. Each invoice specifies a

due date, which has been determined with reference to the Timber Sales Agreement. Customers are expected to pay monthly by the specified due date.

VicForests engages with customers regarding their current account status to ensure that all payments are made in a timely manner. Where payments are not made by the due date VicForests managers actively pursue these payments

If payments are not made within the terms of their agreement, VicForests may:

- issues a first reminder;
- begin to charge penalty interest;
- develop a debt recovery plan;
- require additional securities before continuation of supply; and
- suspend supply.

In most cases, VicForests works with the company to pay off any overdue debt, and continue log supply. Where this is not possible, VicForests ceases log supply and pursues the overdue debt. In some cases, a doubtful debt must be created.

### **6.3 Formal Complaints**

VicForests has administered sales contracts for over ten years. During this time VicForests has undergone three formal disputes with our customers. The details of these disputes are confidential, however broadly involved:

- a dispute with a customer whose contract with VicForests had expired with no further wood being sold to that customer.

The customer disputed the mechanism and communication involved in this outcome. The dispute was resolved through mediation.

- a dispute regarding pricing mechanisms within the contract and how those mechanisms were being applied.

This dispute was a complex multi-party dispute which was ultimately resolved through an agreed expert determination.

- a dispute regarding log supply, log quality and customer payments. This dispute was settled part way through formal arbitration.