



Case for endorsement FWP Training Package Version 5.0

**Submitted by Skills Impact
on behalf of
Timber and Wood Processing
Industry Reference Committee**

June 2019

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A. Administrative details

This section provides an overview of the relevant organisations, the case for change and training package components for endorsement.

Organisational details

This submission is made by the following Industry Reference Committee (IRC):

- Timber and Wood Processing

Skills Impact Ltd is the Skills Service Organisation (SSO) supporting this submission.

Component details

The components submitted for approval are:

- 2 revised qualifications
- 10 new units of competency:
 - 4 in Advances in Wood Machining and Saw Doctoring
 - 6 in Sawmill Timber and Process Optimisation
- 59 revised units of competency:
 - 48 in Advances in Wood Machining and Saw Doctoring
 - 11 in Sawmill Timber and Process Optimisation
- 1 unit for deletion

Non-endorsable components are:

- 2 new skill sets

Other non-endorsable (minor updates) components are:

- 7 qualifications
- 3 skill sets
- 6 units of competency

Case for Change details

The Case for Change (Reference number: Skills Impact/TPD/2017–18/003) was approved on 5 June 2018.

This Case for Endorsement covers two *FWP Forest and Wood Products Training Package* projects:

- Advances in Wood Machining and Sawdoctoring
- Sawmill Timber and Process Optimisation

Requirements set by the Australian Industry and Skills Committee (AISC) for the two projects in relation to the training package development work, and consistent with the activity order, are:

Advances in Wood Machining and Sawdoctoring

- Review 2 qualifications, the *Certificate III in Woodmachining* and the *Certificate III in Sawdoctoring*, to update requirements for demonstrating competency in these professions within the current workplaces
- Review 46 units of competency listed in these qualifications to align skill standards with the current workplace requirements.

Sawmill Timber and Process Optimisation

- Develop a minimum of 6 new units of competency for operating timber optimisation technology and processes at AQF Levels 3 and 4
- Review 11 units of competency in line with the current sawmill timber and process optimisation practices.

Note: The difference between the training package components specified in the Case for Change and those submitted for approval is:

- 4 additional new units that were developed in Advances in Wood Machining and Saw Doctoring
- 1 unit from the list of existing units for review was redeveloped into 2 units, and 1 unit from the same list was redeveloped into 3 units. This resulted in a net increase of 3 units.

B. Description of work and request for approval

The section describes the work undertaken and the decision being sought from the AISC.

Work undertaken and why

The outcomes of this Training Package development work reflect the ongoing modernisation of the timber processing sector and specific job roles for supporting timber production and other significant economic sectors in Australia.

Timber processing is a viable and strong commercial sector, part of a sophisticated and integrated supply-chain that commences with land use and ends with supplying the softwood framing timber used to build the frames and trusses of approximately 85 per cent of new houses built in Australia each year. Additionally, the sector supplies hardwood timber for high-value solid wood products including flooring and furniture.

Through its output, this sector feeds and sustains the or Australia's housing construction industry, the single largest sector in the Australian national economy.

The sector includes five large and a small number of medium scale softwood sawmill organisations with operations and facilities across multiple sites and States. These are highly automated enterprises that use optimised processes for achieving fibre and value recovery. The sector also includes around 200, generally smaller sized, specialist hardwood sawmills. Over 75 per cent of the industry sector employment is concentrated in New South Wales, Queensland and Victoria.

The timber processing sector provides a variety of industry-specific careers. Importantly, it relies on two critical job roles; Wood Machinist and Saw Technician (known as Saw Doctor before this project).

The small number of incumbents in these occupations impart unique and valuable trade skills, without which operational and economic performance of this sector and by extension, the housing construction industry cannot be sustained.

To be clear; there are around 100 trade qualified Wood Machinists and about 80 trade qualified Saw Doctors in Australia's sawmills. Over the years, these job roles have evolved in complexity, particularly in the large softwood sawmills.

The work activities involved in the modern sawmills include:

- Setting up, operating and maintaining extra-large automated machines for cutting, planing and profiling timber to specifications
- Servicing saw blades, knives and guides for the timber processing equipment and other applications
- Inspecting, testing, maintaining and troubleshooting mechanical components on sawing machines and equipment.

The industry's apprenticeship and traineeships programs for these trades are underpinned by two qualifications, the *Certificate III in Woodmachining* and the *Certificate III in Sawdoctoring*.

Historically, there has been insufficient demand for sawmill specific Wood Machining and Saw Doctoring training due to a number of factors. These factors include:

- The small number of people who undertake these job roles in the timber processing sector and being distributed across regional Australia
- A lack of interest from younger generations in the Saw Doctoring occupation due to perceptions associated with an old-fashioned trade and limited professional opportunities
- The availability of an alternative Wood Machining qualification which suits some workplaces (see note below).

As a result, there are only two training providers that deliver the FWP Wood Machining qualification and one training provider that offers both qualifications.

It should be noted that the trade of a Wood Machinist is an occupation also found in other industry sectors, such as timber resawing and dressing, floorboards, furniture, cabinet making and frame and truss manufacturing. The type and the scale of the machines and production systems are significantly different and smaller in these industry sectors than in the timber processing sector. Feedback from stakeholders indicated that the *Certificate III in Timber and Composites Machining* from the MSF

Training Package is designed and represents the qualification of choice to support the Wood Machinist competencies required in the sectors mentioned above.

Further advice suggested that the revised *Certificate III in Wood Machining* from the FWP Training Package should cover the job role of Wood Machinists who work in a sawmill or other timber processing environment and set up and run extra-large machines (e.g. moulders that often have 10 or more cutting heads) to sawn timber to various Dressed All Round (DAR) and profiled products.

On behalf of the *Timber and Wood Processing IRC*, Skills Impact has undertaken the following work on the *FWP Forest and Wood Products Training Package*, with support from a Technical Advisory Committee and broader industry feedback.

Revised Qualifications - Advances in Wood Machining and Saw Doctoring

Two existing qualifications, *FWP30716 Certificate III in Sawdoctoring* and *FWP30816 Certificate III in Woodmachining*, have undertaken a major review. Changes include a new title for one qualification, new units of competency added to the qualifications, units of competency removed from the qualifications, units of competency imported from other training packages, and revised units of competency. These changes are further explained below for each qualification.

Changes to Certificate III in Sawdoctoring

Current qualification code and title	<i>FWP31019 Certificate III in Saw Technology</i>
Previous qualification code and title	<i>FWP30716 Certificate III in Sawdoctoring</i>
Changes to the qualification	<ul style="list-style-type: none"> • A new occupation title (Saw Technician) and qualification name to reflect the modern and broader job functions of this occupation. • A new qualification structure and packaging rules. • Removed 3 existing FWP units of competency and 1 MEM unit of competency from the elective bank as they are no longer relevant to the current job requirements. These units are: <ul style="list-style-type: none"> • <i>FWPSAW3246 Hard face saw teeth</i> • <i>FWPSAW3248 Profile saw blanks</i> • <i>FWPSAW3225 Maintain frame saw blades</i> • <i>MEM05004 Perform routine oxyacetylene welding</i> • Replaced the following existing unit of competency from the elective bank, <i>FWPCOT3210 Sharpen cutting tools</i>, with 3 redrafted units of competency that break down the previous broad job function into defined skills. These redrafted units are listed below. They cover different applications and methods for sharpening cutters (in cutter head or without cutter head), with each involving the use of distinct types of machines and complexities (profile knife grinder and straight knife grinder). <ul style="list-style-type: none"> • <i>FWPCOT3276 Sharpen cutters using a straight knife grinder</i> • <i>FWPCOT3277 Sharpen cutters in head using a profile knife grinder</i> • <i>FWPCOT3278 Sharpen cutters in head using a straight knife grinder</i> • Added 4 new units that have been developed as part of the Advances of Woodmachining and Sawdoctoring Project and the Sawmill Timber and Process Optimisation Project. Three of these units are placed in the elective bank and 1 in the core. These new units are listed below. They

cover skills in timber properties and sawmill operations, timber and process optimisation, and levelling and tensioning sawblades.

- *FWPCOT3286 Identify levelling and tensioning requirements for saw blades* (Elective)
- *FWPCOT3287 Operate CNC equipment for grinding, tensioning and levelling saw blades* (Elective)
- *FWPCOT3290 Apply knowledge of timber properties, sawmill operations and sawmilling equipment* (Core)
- *FWPCOT3291 Apply principles of timber and process optimisation in sawmill operations* (Elective)
- Imported 10 units of competency from the *MEM Manufacturing and Engineering Training Package* as electives. Stakeholders indicated that basic mechanical skills are needed in the *Certificate III in Saw Technology* due to new job role requirements. The unit MEM18055 from the *MEM Manufacturing and Engineering Training Package* was considered as a suitable solution, and it was suggested for being listed in the qualification as an elective together with all its prerequisites. These imported MEM units are:
 - *MEM09002 Interpret technical drawing*
 - *MEM11011 Undertake manual handling*
 - *MEM12023 Perform engineering measurements*
 - *MEM12024 Perform computations*
 - *MEM13015 Work safely and effectively in manufacturing and engineering*
 - *MEM14006 Plan work activities*
 - *MEM16006 Organise and communicate information*
 - *MEM18001 Use hand tools*
 - *MEM18002 Use power tools/hand held operations*
 - *MEM18055 Dismantle, replace and assemble engineering components*

Three MEM welding units have been previously included in the *Certificate III in Sawdoctoring*. They will remain listed as electives.

- *MEM05006 Perform brazing and/or silver soldering*
- *MEM05049 Perform routine gas tungsten arc welding*
- *MEM05050 Perform routine gas metal arc welding*
- Imported 3 units of competency from the Sustainability (MSS) and Manufacturing (MSM) Training Packages as electives to cover the application of statistics, problem-solving tools and 5S procedures to operational processes. These imported units are:
 - *MSS402040 Apply 5S procedures*
 - *MSS404052 Apply statistics to operational processes*
 - *MSMSUP390 Use structured problem-solving tools*

Changes to Certificate III in Woodmachining

Current qualification code and title	<i>FWP31119 Certificate III in Wood Machining</i>
Previous qualification code and title	<i>FWP30816 Certificate III in Woodmachining</i>
Changes to the qualification	<ul style="list-style-type: none"> • Grammatical change to qualification title • A new qualification structure and packaging rules. • Removed 12 existing FWP units of competency and 1 BSB unit of competency from the elective bank as these job functions are no longer relevant to the current sawmill environments. The units are: <ul style="list-style-type: none"> • <i>FWPCOT3299 Cut timber or engineer wood product to profile</i> • <i>FWPCOT2252 Band edges of panels</i> • <i>FWPCOT2232 Cut material to shape using a saw</i> • <i>FWPCOT3234 Cut material using CNC sizing machines</i> • <i>FWPSAW3234 File and set saw blades for hand saws and circular saws</i> • <i>FWPSAW3226 Saw logs using CNC optimising systems</i> • <i>FWPTMM2204 Machine material</i> • <i>FWPTMM3210 Convert timber</i> • <i>FWPTMM3211 Manufacture using joinery machines</i> • <i>FWPTMM3212 Estimate and cost job</i> • <i>FWPTMM4203 Install and commission CNC software</i> • <i>FWPWPP2212 Cut panels to profile</i> • <i>BSBWOR204 Use business technology</i> • Added 7 new units that have been developed as part of the Advances of Woodmachining and Sawdoctoring Project and the Sawmill Timber and Process Optimisation Project. These new units are listed below. They cover skills in timber properties and sawmill operations, timber and process optimisation, operating production saws, levelling and tensioning of sawblades, and using and calibrating timber scanning equipment in sawmills. <ul style="list-style-type: none"> • <i>FWPCOT3286 Identify levelling and tensioning requirements for saw blades</i> • <i>FWPSAW3241 Set up and operate production saws used in sawmill operations</i> • <i>FWPCOT3289 Load and prove operating program for CNC machine</i> • <i>FWPCOT3290 Apply knowledge of timber properties, sawmill operations and sawmilling equipment</i> • <i>FWPCOT3291 Apply principles of timber and process optimisation in sawmill operations</i> • <i>FWPCOT3292 Calibrate and maintain scanning equipment used in sawmilling operations</i>

- *FWPCOT3293 Use scanning equipment for timber grading*
- Replaced the unit *FWPCOT3266 Dress timber using multi-headed machines* with 2 redrafted units of competency that break down the previous broad job functions into defined skills. These 2 units are:
 - *FWPCOT3272 Set up and run multi-head moulder/planer to produce simple profiles*
 - *FWPCOT3273 Set up and run multi-head moulder to produce complex profiles*
- Replaced the unit *FWPCOT3210 Sharpen cutting tools* with 3 redrafted units of competency that break down the previous broad job functions into defined skills. These 3 units are
 - *FWPCOT3276 Sharpen cutters using a straight knife grinder*
 - *FWPCOT3277 Sharpen cutters in head using a profile knife grinder*
 - *FWPCOT3278 Sharpen cutters in head using a straight knife grinder*
- Imported 7 units of competency from the Sustainability (MSS), Manufacturing (MSM), Furnishing (MSF) and Forest and Wood Products (FWP) Training Packages. These imported units cover the application of statistics, problem-solving tools and 5S procedures to operational processes, skills in mechanical stress grading and sampling and testing of timber products to specifications, and competencies in operating machines for higher-value timber products (including routing and shaping machines). These imported units are:
 - *MSS402040 Apply 5S procedures*
 - *MSS404052 Apply statistics to operational processes*
 - *MSMSUP390 Use structured problem-solving tools*
 - *FWPTMM4204 Sample and test products to specifications*
 - *FWPCOT3225 Mechanically stress grade timber*
 - *MSFFM3012 Set up, operate and maintain sawing machines*
 - *MSFFM3017 Set up, operate and maintain routing and shaping machines*

New Units of Competency – Sawmill Timber and Process Optimisation Project

Six new units have been developed based on stakeholder feedback to address skills requirements for optimisation of timber and material flow, particularly within softwood sawmills.

Virtually all job roles in large softwood sawmills are expected to integrate principles of timber and process optimisation in their existing work activity to maximise the overall volume and value of timber recovery.

In addition, new job roles such as Optimisation Managers or Optimisation Technicians have emerged in the softwood processing sector. These roles focus on process improvement across the enterprise's operations or to use optimisation software packages to process information from a range of scanning technologies. Scanning technologies are used in the green mill for maximising the volume and value of timber recovery and in the dry mill for timber grading.

Stakeholder feedback also indicated that there is a shortage of personnel in the industry with expertise in optimisation, particularly at the Optimisation Technician level. To address this shortage, enterprises are recruiting staff from unrelated industry sectors with skills in information technology and software applications. This often means that people working in these roles lack fundamental knowledge of timber and sawmill operations.

The six new units of competency developed to address the optimisation skill needs mentioned above are:

- *FWPCOT3290 Apply knowledge of timber properties, sawmill operations and sawmilling equipment*
- *FWPCOT3291 Apply principles of timber and process optimisation in sawmill operations*
- *FWPCOT3292 Calibrate and maintain scanning equipment used in sawmilling operations*
- *FWPCOT3293 Use scanning equipment for timber grading*
- *FWPSAW4206 Monitor output timber for optimum volume and value recovery*
- *FWPSAW4207 Optimise timber production for volume and value recovery*

New Units of Competency – Advances in Wood Machining and Sawdoctoring

Four new units of competency have been developed to support processes and advanced technology for levelling and tensioning saw blades, and efficient operation of production sawing machines in sawmills.

Stakeholder feedback pointed out that the work of Saw Technicians (previously Saw Doctors) and Wood Machinists is being influenced by automation and new technologies, particularly the introduction of Computer Numerical Control (CNC) machinery for use in grinding, tensioning and levelling circular and band saws. At present, the qualifications for these trades do not address the use of CNC machinery. The following new units have been developed to address these skill needs and have been included in the relevant qualifications:

- *FWPCOT3286 Identify levelling and tensioning requirements for saw blades*
- *FWPCOT3287 Operate CNC equipment for grinding, tensioning and levelling saw blades*
- *FWPSAW3241 Set up and operate production saws used in sawmill operations*
- *FWPCOT3289 Load and prove operating program for CNC machine*

The project sought stakeholders' views on the placement of the new units within qualifications from the *FWP Forest and Wood Products Training Package*. As a result, the 10 new units of competency will be packaged in the Sawmilling and Processing, Wood Machining and Saw Technology Qualifications as shown below.

Proposed new units	Qualifications				
	<i>FWP20316 Certificate II in Sawmilling and Processing</i>	<i>FWP30316 Certificate III in Sawmilling and Processing</i>	<i>FWP31119 Certificate III in Wood Machining</i>	<i>FWP31019 Certificate III in Saw Technology</i>	<i>FWP40216 Certificate IV in Timber Processing</i>
<i>FWPCOT3286 Identify levelling and tensioning requirements for saw blades</i>		Elective	Elective	Core	
<i>FWPCOT3287 Operate CNC equipment for grinding, tensioning and levelling saw blades</i>				Elective	
<i>FWPSAW3241 Set up and operate production saws used in sawmill operations</i>		Elective	Elective		
<i>FWPCOT3289 Load and prove operating program for CNC machine</i>			Elective		
<i>FWPCOT3290 Apply knowledge of timber properties, sawmill operations and sawmilling equipment</i>	Elective	Elective	Core	Core	
<i>FWPCOT3291 Apply principles of timber and process optimisation in sawmill operations</i>		Elective	Elective	Elective	
<i>FWPCOT3292 Calibrate and maintain scanning equipment used in sawmilling operations</i>		Elective	Elective		
<i>FWPCOT3293 Use scanning equipment for timber grading</i>		Elective	Elective		
<i>FWPSAW4206 Monitor output timber for optimum volume and value recovery</i>					Elective
<i>FWPSAW4207 Optimise timber production for volume and value recovery</i>					Elective

Revised Units of Competency – Advances in Wood Machining and Sawdoctoring

Forty-eight existing units of competency have been revised to meet current skill needs and ensure compliance with the Standards for Training Packages. Common changes across many of these units include updates to the workplace health and safety requirements and Foundation Skills, rewording of Application statement to clarify the intent of the unit, alignment of requirements in the performance criteria and performance evidence, and other minor edits. A summary of other changes made to these units include:

- All 48 units received a new unit code and title for clarity, consistency and compliance
- 6 units are deemed non-equivalent units. They undertook changes that will result in increased skill and knowledge requirements.

Revised Units - Sawmill Timber and Process Optimisation

Eleven existing units of competency have been revised to meet current skill needs and ensure compliance with the *Standards for Training Packages 2012*. Common changes across many of these units include updates to the workplace health and safety requirements and Foundation Skills, rewording of Application statements to clarify the intent of the units, alignment of requirements in the performance criteria and performance evidence, and other minor edits. A summary of other changes made to these units are:

- All 11 units received a new unit code and title for clarity, consistency and compliance
- 2 units are deemed non-equivalent units. They undertook changes that will result in increased skill and knowledge requirements.

Unit for deletion

One unit of competency has been deleted from the *FWP Forest and Wood Products Training Package* because feedback from stakeholders indicated that it is no longer relevant to the current workplaces. This unit is:

- *FWPSAW3225 Maintain frame saw blades*

The deleted unit covered a job activity related to the saw technology specialisation and it was previously included only in *FWP30716 Certificate III in Sawdoctoring*.

Additional work undertaken

Pre-Apprenticeship (non-endorsable component)

Stakeholders' feedback highlighted the need for broadening the accessibility of a school-based pre-apprenticeship program for Wood Machinists and Saw Technicians (previously Saw Doctors) throughout the *FWP Forest and Wood Products Training Package*. As a result, 4 units of competency plus the required 3 prerequisites for the MEM unit were proposed and introduced into the elective bank of *FWP20316 Certificate II in Sawmilling and Processing* to provide a pathway into the trade job roles mentioned above. These units are:

- *FWPCOT3271 Hand sharpen knives and blades for commercial and domestic cutting services*
- *FWPCOT3276 Sharpen cutters using a straight knife grinder*
- *FWPSAW3247 Replace Tungsten tips*
- *MEM05006 Perform brazing and/or silver soldering*
- *MEM11011 Undertake manual handling*
- *MEM13015 Work safely and effectively in manufacturing and engineering*
- *MEM16006 Organise and communicate information*

New skill sets (non-endorsable component)

Stakeholders also looked at possible options to offer Saw Technicians (previously Saw Doctors) a career pathway towards higher-level technical jobs through skills in troubleshooting hydraulic and pneumatic systems. They provided examples of workplaces where Saw Technicians undertook training in mechanical systems maintenance or Saw Technicians who wish to advance their skills in this area, emphasizing the importance of these skills in sawmills. In this context, five relevant units of competency from the *MEM Manufacturing and Engineering Training Package* were suggested for consideration, noting that these units had a total number of 17 prerequisite units.

The project initially considered a potential new qualification at AQF level 4, however there was not enough scope to pursue the idea.

The next option was to import the five MEM units of competency into the elective bank of *FWP40216 Certificate IV in Timber Processing*. Regarding this outcome, the Victoria State Training Authority asked the project to meet requirements contained in the next review of training package policies that state that where an imported unit of competency has a pre-requisite requirement, the pre-requisite

unit and any associated pre-requisite chain of units must also be imported into the qualification, named and listed; a requirement that is not stipulated in the current policy.

In consultation with the project nominated QA Panel member, the project determined that there was only one solution (short-term) for addressing the prerequisite issue, remove the MEM units from FWP40216 Certificate IV in Timber Processing and create two skill sets:

- *FWPSS00039 Skill set for hydraulic maintenance of saw technology*
- *FWPSS00040 Skill set for pneumatic maintenance of saw technology*

Because the MEM units are inaccessible to FWP and other training packages due to the long chains of prerequisites, the industry will consider developing FWP units that match the skill provided by the specialised MEM units without needing to deal with the onerous prerequisites attached to MEM units.

Unit imported into the FWP40216 Certificate IV in Timber Processing (non-endorsable component)

The project imported the following MEM unit into the *FWP40216 Certificate IV in Timber Processing* to fill a skill gap that stakeholders identified in relation to work tasks involving production schedules. This unit does not have prerequisites at this stage.

- *MEM30021A Prepare a simple production schedule*

Qualifications and skill sets affected (non-endorsable minor updates)

The following FWP Training Package components have undergone IRC minor updates as part of these projects:

- 2 qualifications at the AQF level 2 and 4 (as described above)
 - *FWP20316 Certificate II in Sawmilling and Processing*
 - *FWP40216 Certificate IV in Timber Processing*
- 5 additional qualifications at the AQF level 2, 3 and 4
 - *FWP20516 Certificate II in Timber Manufactured Products*
 - *FWP20416 Certificate II in Wood Panel Products*
 - *FWP30316 Certificate III in Sawmilling and Processing*
 - *FWP30516 Certificate III in Timber Manufactured Products*
 - *FWP30416 Certificate III in Wood Panel Products*

Note: These qualifications are those that contain units that were revised as part of the project. Two further qualifications also contain units that were updated as part of the project (*FWP20616 Certificate II in Timber Merchandising* and *FWP30616 Certificate III in Timber Merchandising*). As these qualifications contain deleted imported units within the core they are unable to be updated. No other FWP qualifications contain units that were reviewed as part of these projects.

- 3 skill sets
 - *FWPSS00028 Skill set for a finger jointing plant operator*
 - *FWPSS00029 Skill set for a finger jointing moulder operator*
 - *FWPSS00030 Skill set for a finger jointing grader operator*

Note: The 5 qualifications and 3 skill sets listed above have been updated for the following reasons:

- Reflect the release of revised FWP units
- Updated imported MEM units and added all prerequisites as electives
- Replace superseded imported units
- Import a unit for front-end loading operations
- Remove deleted imported units.

All revised, superseded and deleted imported units are part of the elective bank (not the core) within these qualifications, and they do not affect the vocational/job outcome of the qualification. The packaging rules of the FWP qualifications allow flexibility to the users to select up to 2 or 3 elective units of competency from the same qualification or any endorsed Training Package or state/territory accredited course. This feature compensates for any potential skill gaps created by deleted imported units within a qualification.

- 6 units of competency from *FWP20116 Certificate II in Forest Growing and Management*, *FWP20216 Certificate II in Harvesting and Haulage* and *FWP30216 Certificate III in Harvesting and Haulage*.
 - *FWPCOT2239 Trim and cut felled trees*
 - *FWPHAR2203 Hook up felled trees (choker)*
 - *FWPHAR2204 Perform landing duties (chaser)*
 - *FWPHAR2207 Trim and cut harvested trees*
 - *FWPHAR3201 Monitor log recovery (rigging slinger)*
 - *FWPHAR3222 Use on-board computer systems for forwarder*

Note: The units of competency have been updated to address several issues raised by stakeholders over the last two years about:

- Achieving consistency with wording in similar FWPHAR units
- Enabling the flexibility of the unit application
- Correcting system errors in the unit
- Providing clarification.

Please refer to **Appendix 2: Non-endorsable components** for a list of all qualifications, skill sets and units of competency with minor updates.

Decision being sought

This submission puts forward the Case for Endorsement for the proposed components of the *FWP Forest and Wood Products Training Package Version 5.0*.

The draft components submitted for endorsement by the AISC are:

- 2 revised qualifications
- 10 new units of competency
- 59 revised units of competency
- 1 unit for deletion.

The proposed Training Package components are listed in **Appendix 1: Components for Endorsement**.

All components submitted for endorsement have been developed and reviewed in accordance with the *Standards for Training Packages 2012*, the *Training Package Products Policy 2012* and the *Training Package Development and Endorsement Policy, 2016*.

C. Evidence of Industry support

This section provides evidence that the *FWP Forest and Wood Products Training Package 5.0* is supported by industry.

Support by IRC(s)

The *Timber and Wood Processing IRC* recorded their support for this submission via emails during 16 April 2019 - 3 May 2019 for provisional approval and on 27 June 2019 for the final sign-off.

Please refer to **Section I. IRC support** for written evidence of support.

Consultation with stakeholders

Stakeholder consultation has been commensurate with the industry size and the level and scope of the projects. The projects covered a small segment of industry (timber processing), a very narrow occupation group in terms of employment, but one that is very significant because of its contribution to the housing construction industry and the nation's economy in total.

Organisations consulted represent a significant proportion of the current timber processing sector which relates directly to the scope of the project.

Forty Technical Advisory Committee members (27 and 21 for the individual projects, with 8 memberships across both projects) were consulted during and supported the development of draft components. The TAC members represented:

- All 5 large softwood sawmills with multiple sites across different States
- 6 medium size sawmills and timber dressing plants
- 3 large saw services organisations (in which a number of Saw Doctors/Saw Technicians are employed)
- 2 training providers who are the only active registered training organisations in the project areas
- The main employee representative organisation (CFMMEU)

In addition, the following industry body organisations were contacted and consulted on the draft units. Support was also sought from these organisations in communicating the projects with their members. All confirmed that the information was forwarded to their members or stakeholders:

- 6 state-based and national industry associations
- 3 industry training advisory bodies

Stakeholder consultation and validation methodology for both projects included:

- A project page was set up and maintained for each project on the Skills Impact website throughout the project life. The project web pages also invited visitors to register their interest for receiving email alerts about project updates and described opportunities for providing feedback on draft materials. Links to the project pages are provided below.
 - Advances in Wood Machining and Saw Doctoring Project - <https://www.skillsimpact.com.au/timber-wood-processing/training-package-projects/advances-in-woodmachining-and-sawdoctoring-project/>
 - Sawmill Timber and Process Optimisation Project - <https://www.skillsimpact.com.au/timber-wood-processing/training-package-projects/sawmill-timber-and-process-optimisation-project/>
- Considerable feedback was received from the TAC members of each project during the project development phase.

The project conducted the following TAC consultation activities:

- TAC teleconference (27 Aug 2018)
- Site visits at 5 sawmills (12-17 September 2018)
- TAC teleconference (23 October 2018)

- TAC teleconference (7 November 2018)
- Workshop with trainers at Timber Training Creswick (15 November 2018)
- TAC (small group) teleconference (19 November 2018)
 - Telephone calls, surveys, feedback reports, Dropbox and emails were also used to discuss and seek guidance regarding aspects of the project and to ask and respond to questions regarding draft materials.
 - The project exchanged over 250 emails with the TAC members for both projects.
- Broad industry consultation took place for both projects between 21 January and 20 February 2019 (four weeks). During this time, the projects received feedback on the draft units via email, the online Feedback Hub and telephone.
- Further industry consultation was held between 25 February and 11 March 2019 (two weeks) to validate the final draft units.
- All draft materials were hosted on the Skills Impact website during the public consultations and validation phases of the projects.
- News articles reflecting project updates were posted regularly in the Skills Impact newsletter and the Australian Forests & Timber News (the top industry newsletter) during the project period.
- Regular project updates were also provided to the IRC.

In summary, it is important to note that for occupations that are integral to the operation of the nation's sawmills, and therefore, the supply of more than 85% of Australia's substantial sawn timber needs, this represents very extensive engagement and participation in the feedback processes. Given the importance of these occupations, this level of engagement is unsurprising.

State/Territory and key stakeholder engagement

State and Territory industry stakeholder views were sought during public consultation periods, and all feedback was considered. The draft materials were prominent on the Skills Impact website project page for sector-wide consultation. The projects were also communicated through state-based industry associations and training advisory bodies.

Regular emails and newsletters were directed to the State and Territory Training Authorities (STAs/TTAs), VET regulators and other stakeholders to keep them informed of the projects' progress.

Please refer to **Appendix 3: Industry support** for a list of activities conducted, organisations and individuals consulted.

Reports by exception

There are no reports by exception.

D. Industry expectations about training delivery

This section explains the advice provided in the Companion Volume Implementation Guide for the *FWP Forest and Wood Products Training Package 5.0* together with recommendations for delivery of qualifications as traineeships/apprenticeships.

Training delivery

The updated and new units of competency have been developed to address critical skills and knowledge requirements for:

- Undertaking the job roles of Wood Machinist and Saw Technician
- Optimising timber and material flow in the timber processing sector of the forest and wood products industry.

The industry expectation is that people assessed as competent in these qualifications and new units will be equipped with the appropriate skills and knowledge to perform jobs effectively, efficiently and to meet compliance requirements in a business that operates within the sawmilling industry.

The updated training package components, including qualifications, existing units of competency and new units of competency, can be delivered and assessed in the workplace or an environment that accurately represents workplace conditions. They support implementation across a range of industry settings by providing guidance that encourages assessment in a variety of contexts and applications.

The FWP Forest and Wood Products Training Package Companion Volume Implementation Guide details information that covers key industry expectations about:

- Qualifications suitable for vocational education and training delivered to secondary students
- Qualifications suitable for delivery as apprenticeships or traineeships
- Amount of training/volume of learning requirements to ensure that the individual can gain the necessary skills and knowledge
- Key legislative requirements
- Essential knowledge and performance requirements.

Delivery as apprenticeship/traineeship

The *FWP Forest and Wood Products Training Package* is designed to facilitate implementation of Australian Apprenticeships/Traineeships.

The *Timber and Wood Processing IRC* recommends that the revised qualifications listed in the following table should continue to be the basis for an apprenticeship.

Qualification	Delivery recommendation
<i>FWP31019 Certificate III in Saw Technology</i>	Apprenticeship
<i>FWP31119 Certificate III in Wood Machining</i>	Apprenticeship

E. Implementation of the training package components

This section explains how the training package meets occupational and/or licensing requirements and identifies particular implementation issues and strategies to manage these issues.

How training package components meet occupation and licensing requirements

The skills and knowledge covered by the updated qualifications and revised and new units of competency are applied in a sawmill environment. No licencing requirements are required to conduct the jobs described by these units of competencies.

Learners of the revised and new units of competency are also expected to meet workplace and legal obligations related to work health and safety, apply relevant standards and perform activities according to workplace procedures and operational requirements. These requirements are explicitly reflected throughout the units.

Implementation issues and management strategies

In the very specialised area of sawmilling and timber processing sectors, a small number of Registered Training Organisations (RTOs) are active.

The nature of the industry – small, regionally located, with specialised equipment – means that these training providers have to, and work closely with, enterprises to deliver training programs. Whilst the training providers have a range of specialised equipment on site, much of the training occurs in the workplace. The RTOs have developed strong partnerships with industry enterprises.

Alongside industry enterprises, these RTOs have been actively involved in the development and review of the qualifications and units of competency covered by this project.

A project outcome has been the introduction of a significant number of units from the *MEM Manufacturing and Engineering Training Package* into the elective bank of *FWP31019 Certificate III in Saw Technology* and the two new skill sets, *FWPSS00039 Skill set for hydraulic maintenance of saw technology* and *FWPSS00040 Skill set for pneumatic maintenance of saw technology*. The MEM units prescribe not only a large number of prerequisites but also mandated hours for work placement. According to the *MEM Manufacturing and Engineering Training Package Companion Volume Implementation Guide*, the number of mandated hours specified in the assessment requirements of the MEM units represent a total number of hours for work placement across the MEM qualification (or in FWP's case, for the group of units that are taken concurrently). It is not the hours per unit.

The mandated hours are unlikely to affect employers and learners because around 99% of training and assessment in the timber industry occurs on-the-job under partnership arrangements between employer and RTO. An anticipated challenge for the current RTOs delivering the *FWP31019 Certificate III in Saw Technology* is to build relationships and coordinate assessments with RTO assessors who have current MEM vocational competency. In addition, RTO's with teaching facilities will need to procure new equipment for efficient delivery of some of the units (e.g. optimisation, scanning).

F. Quality assurance reports

Skills Impact declares that the proposed components of the *FWP Forest and Wood Products Training Package 5.0* meet the requirements of the *Standards for Training Packages 2012* and the *Training Package Development and Endorsement Process Policy*.

The table provides a statement of evidence that the components meet the Training Package Quality Principles.

Principle	Evidenced by:
1. Reflect identified workforce outcomes	<ul style="list-style-type: none"> • Changes demonstrate a clear link back to relevant AISC decisions commissioning the work and the IRC Skills Forecast and Proposed Schedule of Work • Training package components are compliant with the <i>Standards for Training Packages 2012</i>, the <i>Training Package Products Policy</i> and the <i>Training Package Development and Endorsement Process Policy</i> • Open and inclusive consultation and validation commensurate with scope and impact has been conducted
2. Support portability of skills and competencies including reflecting licensing and regulatory requirements	<ul style="list-style-type: none"> • Packaging rules, qualifications framework, and pathways support movement within and across sectors • Other national and international standards for skills have been considered • The assessment requirements associated with each unit provide flexibility for conducting assessments to meet the needs of employers and individual • No individual units of competency have occupational licensing or certification requirements
3. Reflect national agreement about the core transferable skills and core job-specific skills required for job roles as identified by industry	<ul style="list-style-type: none"> • Active engagement across industry has sought to achieve a national consensus about the advice being provided to the AISC
4. Be flexible to meet the diversity of individual and employer needs, including the capacity to adapt to changing job roles and workplaces	<ul style="list-style-type: none"> • The new and improved units are flexible so they enable application in different contexts and by multiple industry sectors • The revised qualifications are flexible, enabling application in different contexts • The revised qualifications provide multiple entry and exit points • The revised qualifications do not have entry requirements and the new and improved FWP units of competency do not prescribe prerequisites, minimising barriers to qualification and unit achievement
5. Facilitate recognition of an individual's skills and knowledge and support movement between the school, vocational education and higher education sectors	<ul style="list-style-type: none"> • The solutions adopted for pre-apprenticeship and to promote career pathways provide pathways from entry and preparatory level as appropriate to facilitate movement between schools and VET, from entry level into work, and between VET and higher education qualifications

<p>6. Support interpretation by training providers and others through the use of simple, concise language and clear articulation of assessment requirements</p>	<ul style="list-style-type: none"> • Industry advice about delivery is provided via a Companion Volume Implementation Guide ready for publication at the same time as the Training Package • Units of competency and their associated assessment requirements are clearly written and have consistent breadth and depth • Compliance with the TGA/National Register requirements for publication • Implementation advice is provided in a Companion Volume Implementation Guide that is ready for publication at the same time as the Training Package
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The declaration and statement of evidence is confirmed by the independent Quality Report which is provided in **Appendix 4: Quality Report**.

The *FWP Forest and Wood Products Training Package Companion Volume Implementation Guide* has been quality assured through Skills Impact's quality processes and is available.

G. Implementation of COAG Industry Skills Council reforms to training packages

The decision being sought from the AISC would support the *COAG Industry and Skills Council* reforms to training packages.

Completion of training package development work, together with extensive consultation with relevant stakeholders, confirms that the submission:

- Does not duplicate existing units of competency
- Meets industry expectations regarding training delivery
- Creates an additional career pathway from Certificate III to Certificate IV within the sawmilling and processing sector – primarily targeted at operators specialising in highly technical precision machinery used in sawmills. It could also mean recognition of skills for those operators who chose to progress a broader mechanical or engineering career
- Removes a unit that industry has deemed to be obsolete.

H. Evidence of completion

Skills Impact confirms that the proposed components of the *FWP Forest and Wood Products Training Package 5.0* have been completed according to the work assigned by the AISC in the 2018-2021 Industry Skills Forecast and Proposed Schedule of Work and the subsequent Activity Order.

The developed training package components are listed in **Appendix 1: Components for Endorsement**. Full copies of the listed training package components are provided with this Case for Endorsement.

Evidence that training package component(s) are prepared for publication.

The Quality Report provides confirmation that the draft components meet the *Standards for Training Packages 2012*.

All components have been created to comply with the National Register requirements for publication. The **Mapping Summary** and **Training Package Modification History** provided in **Appendix 1 Components for endorsement** provide details of the changes to the training package components that are required to allow them to be published on the National Register.

I. IRC support

The *Timber and Wood Processing IRC* supports the submission of the training package components detailed in this Case for Endorsement.

Signed for and on behalf of the Timber and Wood Processing IRC by its appointed Chair.

Name of Chair: Dave Gover



Signature of Chair

Date: 27 June 2019

Appendix 1: Components for endorsement

a. List of qualification titles and codes

Qualifications in <i>the FWP Forest and Wood Products Training Package Version 5.0</i>	
Code	Title
FWP31019	Certificate III in Saw Technology
FWP31119	Certificate III in Wood Machining

b. List of unit titles and codes and associated assessment requirements

Units of competency in <i>the FWP Forest and Wood Products Training Package Version 5.0</i>	
Code	Title
FWPCOT2243	Tail out timber product and waste material
FWPCOT2244	Operate and maintain a thicknesser
FWPCOT2245	Operate and maintain a table saw
FWPCOT2246	Appearance grade hardwood sawn and milled products
FWPCOT2247	Appearance grade softwood sawn and milled products
FWPCOT2248	Appearance grade cypress sawn and milled products
FWPCOT2249	Visually stress grade hardwood
FWPCOT2250	Visually stress grade softwood
FWPCOT2251	Visually stress grade cypress
FWPCOT2252	Band edges of panels
FWPCOT3271	Hand sharpen knives and blades for commercial and domestic cutting services
FWPCOT3272	Set up and run multi-head moulder/planer to produce simple profiles
FWPCOT3273	Set up and run multi-head moulder to produce complex profiles
FWPCOT3274	Cut timber products using high-speed optimiser
FWPCOT3275	Set up, operate and maintain end matching machines
FWPCOT3276	Sharpen cutters using a straight knife grinder
FWPCOT3277	Sharpen cutters in head using a profile knife grinder
FWPCOT3278	Sharpen cutters in head using a straight knife grinder
FWPCOT3279	Assess and maintain saw technology tools
FWPCOT3280	Replace saw blades, knives and guides
FWPCOT3281	Manufacture profile cutters
FWPCOT3282	Assess and maintain saw blade and sawing machine performance
FWPCOT3283	Sharpen and position blades or knives in chipper, canter and reducer
FWPCOT3284	Grade, sort and mark timber materials
FWPCOT3285	Apply knowledge of wood technology principles to end use applications
FWPCOT3286	Identify levelling and tensioning requirements for saw blades

Units of competency in the FWP Forest and Wood Products Training Package Version 5.0	
Code	Title
FWPCOT3287	Operate CNC equipment for grinding, tensioning and levelling saw blades
FWPCOT3288	Set up, operate and maintain finger jointing machines
FWPCOT3289	Load and prove operating program for CNC machine
FWPCOT3290	Apply knowledge of timber properties, sawmill operations and sawmilling equipment
FWPCOT3291	Apply principles of timber and process optimisation in sawmill operations
FWPCOT3292	Calibrate and maintain scanning equipment used in sawmilling operations
FWPCOT3293	Use scanning equipment for timber grading
FWPCOT3294	Swage and shape saw blades
FWPCOT3295	Assess and maintain cutter performance
FWPCOT3296	Mechanically stress grade timber
FWPCOT3297	Operate automated stacking equipment
FWPCOT3298	Produce templates
FWPCOT3299	Cut timber or engineered wood product to profile
FWPSAW2211	Round softwood logs
FWPSAW3230	Perform primary log breakdown
FWPSAW3231	Perform secondary log breakdown
FWPSAW3232	Sharpen band saw blades
FWPSAW3233	Sharpen circular saw blades
FWPSAW3234	File and set saw blades for hand saws and circular saws
FWPSAW3235	Recondition saw guides
FWPSAW3236	Sharpen tipped circular saw blades
FWPSAW3237	Level and tension circular saw blades
FWPSAW3238	Replace Stellite tips
FWPSAW3239	Assess and maintain wide band saw blades
FWPSAW3240	Assess and maintain band saw wheels
FWPSAW3241	Set up and operate production saws used in sawmill operations
FWPSAW3242	Treat timber
FWPSAW3243	Produce sawn green boards
FWPSAW3244	Align sawing production systems
FWPSAW3245	Join band saw blades
FWPSAW3246	Hard face saw teeth
FWPSAW3247	Replace tungsten tips
FWPSAW3248	Profile saw blanks
FWPSAW3249	Saw logs using CNC optimising systems
FWPSAW3250	Select and saw logs in multi-species operations
FWPSAW3251	Apply principles of blade design to sawing procedures
FWPSAW4206	Monitor output timber for optimum volume and value recovery
FWPSAW4207	Optimise timber production for volume and value recovery
FWPTMM2204	Machine material
FWPTMM3210	Convert timber
FWPTMM3211	Manufacture using joinery machines

Units of competency in the FWP Forest and Wood Products Training Package Version 5.0	
Code	Title
FWPTMM3212	Estimate and cost job
FWPWPP2212	Cut panels to profile

c. Mapping information

FWP Forest and Wood Products Training Package Version 5.0			
Mapping of qualifications			
Code and title (Version 4)	Code and title (Version 5)	Comments	Equivalence statement
FPI30716 Certificate III in Sawdoctoring Release 1	FWP31019 Certificate III in Saw Technology Release 1	Qualification updated to reflect new name, additional units added to the core, units removed, and additional imported units.	No equivalent qualification
FWP30816 Certificate III in Woodmachining Release 2	FWP31119 Certificate III in Wood Machining Release 1	Qualification updated to reflect additional units added to the core, units removed, and additional imported units. Grammatical update to title.	No equivalent qualification

FWP Forest and Wood Products Training Package Version 5.0			
Mapping of skill sets			
Code and title (Version 4.0)	Code and title (Version 5.0)	Comments	Equivalence statement
Not applicable	FWPSS00039 Skill set for hydraulic maintenance of saw technology	New skill set	No equivalent skill set
Not applicable	FWPSS00040 Skill set for pneumatic maintenance of saw technology	New skill set	No equivalent skill set

FWP Forest and Wood Products Training Package Version 5.0

Mapping of units of competency

Code and title (Version 4)	Code and title (Version 5)	Comments	Equivalence statement
Not applicable	FWPCOT3286 Identify levelling and tensioning requirements for saw blades	New Unit	No equivalent unit
Not applicable	FWPCOT3287 Operate CNC equipment for grinding, tensioning and levelling saw blades	New Unit	No equivalent unit
Not applicable	FWPCOT3289 Load and prove operating program for CNC machine	New Unit	No equivalent unit
Not applicable	FWPCOT3290 Apply knowledge of timber properties, sawmill operations and sawmilling equipment	New Unit	No equivalent unit
Not applicable	FWPCOT3291 Apply principles of timber and process optimisation in sawmill operations	New Unit	No equivalent unit
Not applicable	FWPCOT3292 Calibrate and maintain scanning equipment used in sawmilling operations	New Unit	No equivalent unit
Not applicable	FWPCOT3293 Use scanning equipment for timber grading	New Unit	No equivalent unit
Not applicable	FWPSAW3241 Set up and operate production saws used in sawmill operations	New Unit	No equivalent unit
Not applicable	FWPSAW4206 Monitor output timber for optimum volume and value recovery	New Unit	No equivalent unit
Not applicable	FWPSAW4207 Optimise timber production for volume and value recovery	New Unit	No equivalent unit
FWPCOT2205 Tail out materials	FWPCOT2243 Tail out timber product and waste material	Updated unit code and title for clarity and compliance; edited machines required under assessment conditions.	Equivalent unit

FWP Forest and Wood Products Training Package Version 5.0

Mapping of units of competency

Code and title (Version 4)	Code and title (Version 5)	Comments	Equivalence statement
FWPCOT2207 Dress boards and timber	FWPCOT2244 Operate and maintain a thicknesser	Revised application statement; modified element 2 sequence; updated unit code and title for clarity and compliance.	Equivalent unit
FWPCOT2208 Resaw boards and timber	FWPCOT2245 Operate and maintain a table saw	Reworded application statement for clarity; revised performance criteria; changed unit code and title for consistency and compliance.	Equivalent unit
FWPCOT2212 Grade hardwood sawn and milled products	FWPCOT2246 Appearance grade hardwood sawn and milled products	Revised performance evidence and knowledge evidence for mapping and clarity; updated unit code and title to reflect changes and for compliance.	Equivalent unit
FWPCOT2213 Grade softwood sawn and milled products	FWPCOT2247 Appearance grade softwood sawn and milled products	Revised performance evidence and knowledge evidence for mapping and clarity; updated unit code and title to reflect changes and for compliance.	Equivalent unit
FWPCOT2214 Grade cypress sawn and milled products	FWPCOT2248 Appearance grade cypress sawn and milled products	Revised performance evidence and knowledge evidence for mapping and clarity; updated unit code and title to reflect changes and for compliance.	Equivalent unit
FWPCOT2215 Visually stress grade hardwood	FWPCOT2249 Visually stress grade hardwood	Updated performance criteria to reflect environmental and workplace health and safety requirements; updated foundation skills; added performance evidence and knowledge evidence to map to performance criteria; updated unit code to reflect changes and meet compliance.	Equivalent unit
FWPCOT2216 Visually stress grade softwood	FWPCOT2250 Visually stress grade softwood	Reworded application statement; updated performance criteria to reflect environmental and workplace health and safety requirements; updated foundation skills; added performance evidence and knowledge evidence to map to performance criteria; updated unit code to reflect changes and meet compliance.	Equivalent unit
FWPCOT2217 Visually stress grade cypress	FWPCOT2251 Visually stress grade cypress	Reworded application statement; updated performance criteria to reflect environmental and workplace	Equivalent unit

FWP Forest and Wood Products Training Package Version 5.0

Mapping of units of competency

Code and title (Version 4)	Code and title (Version 5)	Comments	Equivalence statement
		health and safety requirements; updated foundation skills; added performance evidence and knowledge evidence to map to performance criteria; updated unit code to reflect changes and meet compliance.	
FWPCOT2224 Band edges of panels	FWPCOT2252 Band edges of panels	Reworded application statement; updated performance criteria to reflect environmental and workplace health and safety requirements; updated foundation skills; added performance evidence to map to performance criteria; updated unit code to reflect changes and meet compliance.	Equivalent unit
FWPCOT2239 Trim and cut felled trees Release 3	FWPCOT2239 Trim and cut felled trees Release 2	Minor edits to achieve consistency with wording in another FWPHAR unit; and enable flexibility of the unit application.	Equivalent unit
FWPCOT3201 Hand sharpen knives and blades	FWPCOT3271 Hand sharpen knives and blades for commercial and domestic cutting services	Updated application statement; revised knowledge evidence; updated unit code and title to reflect changes and for compliance.	Equivalent unit
FWPCOT3206 Cut material using high speed optimiser	FWPCOT3274 Cut timber products using high-speed optimiser	Updated application statement; updated performance criteria to reflect environmental and workplace health and safety requirements; updated foundation skills; added performance evidence to map to performance criteria; updated unit title and code to reflect changes.	Equivalent unit
FWPCOT3207 Set up, operate and maintain finger jointing operations	FWPCOT3288 Set up, operate and maintain finger jointing machines	Reworded application statement; reorganised performance evidence into new elements; updated environmental and workplace health and safety requirements; updated foundation skills; added performance evidence to map to performance criteria;	Equivalent unit

FWP Forest and Wood Products Training Package Version 5.0

Mapping of units of competency

Code and title (Version 4)	Code and title (Version 5)	Comments	Equivalence statement
		updated unit code and title for clarity and compliance.	
FWPCOT3209 Set up, operate and maintain end matching operations	FWPCOT3275 Set up, operate and maintain end matching machines	Updated workplace health and safety requirements; renamed element 1; split element 2; revised performance evidence to map to performance criteria; updated unit code and title for clarity and compliance.	Equivalent unit
FWPCOT3210 Sharpen cutting tools	FWPCOT3276 Sharpen cutters using a straight knife grinder	The original unit has been replaced by three units including this unit to define specific skills required of operators for using different methods and equipment for sharpening different types of cutters to produce timber with simple and complex profiles.	No equivalent unit
FWPCOT3210 Sharpen cutting tools	FWPCOT3277 Sharpen cutters in head using a profile knife grinder	The original unit has been replaced by three units including this unit to define specific skills required of operators for using different methods and equipment for sharpening different types of cutters to produce timber with simple and complex profiles.	No equivalent unit
FWPCOT3210 Sharpen cutting tools	FWPCOT3278 Sharpen cutters in head using a straight knife grinder	The original unit has been replaced by three units including this unit to define specific skills required of operators for using different methods and equipment for sharpening different types of cutters to produce timber with simple and complex profiles.	No equivalent unit
FWPCOT3211 Maintain sawdoctoring tools	FWPCOT3279 Assess and maintain saw technology tools	Added new elements; redrafted performance evidence; expanded knowledge evidence and assessment conditions to include additional tools; changed title and unit code to reflect updates and for compliance.	No equivalent unit
FWPCOT3212 Replace saws, blades and guides	FWPCOT3280 Replace saw blades, knives and guides	Reworded application statement for clarity; updated unit code and title for clarity and compliance.	Equivalent unit
FWPCOT3213 Manufacture cutting tools	FWPCOT3281 Manufacture profile cutters	Updated application for clarity; reworded element 1; revised knowledge evidence; updated	Equivalent unit

FWP Forest and Wood Products Training Package Version 5.0

Mapping of units of competency

Code and title (Version 4)	Code and title (Version 5)	Comments	Equivalence statement
		unit code and title for clarity and compliance.	
FWPCOT3215 Swage and shape saw blades	FWPCOT3294 Swage and shape saw blades	Updated environmental and workplace health and safety requirements; separated performance criteria into a new element; updated foundation skills; updated performance evidence to map to performance criteria; updated unit code to reflect changes and meet compliance.	Equivalent unit
FWPCOT3216 Assess and maintain saw performance	FWPCOT3282 Assess and maintain saw blade and sawing machine performance	Reworded application; revised performance criteria and evidence for mapping; renamed elements for clarity; updated unit code and title to reflect changes and for compliance.	Equivalent unit
FWPCOT3217 Assess and maintain cutter performance	FWPCOT3295 Assess and maintain cutter performance	Updated application; revised elements and performance criteria for clarity; revised list of relevant machines; reworded performance evidence. Vocational outcomes have not changed.	Equivalent unit
FWPCOT3225 Mechanically stress grade timber	FWPCOT3296 Mechanically stress grade timber	Updated performance criteria to match knowledge evidence regarding workplace health and safety requirements; updated foundation skills.	Equivalent unit
FWPCOT3230 Operate automated stacking equipment	FWPCOT3297 Operate automated stacking equipment	Updated workplace health and safety requirements to match across sections; updated foundation skills.	Equivalent unit
FWPCOT3233 Sharpen and align blades and knives	FWPCOT3283 Sharpen and position blades or knives in chipper, canter and reducer	Split element 5; reworded elements; revised performance criteria, performance evidence, knowledge evidence and assessment conditions; updated unit code and title to reflect changes and for compliance.	Equivalent unit
FWPCOT3237 Produce templates	FWPCOT3298 Produce templates	Updated performance criteria to reflect environmental and workplace health and safety requirements; separated performance criteria into a new element and reworded the other elements; updated foundation skills; updated	Equivalent unit

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Mapping of units of competency

Code and title (Version 4)	Code and title (Version 5)	Comments	Equivalence statement
		performance evidence to map to performance criteria; updated unit code to reflect changes and meet compliance.	
FWPCOT3245 Grade, sort and mark materials	FWPCOT3284 Grade, sort and mark timber materials	Updated application statement; updated performance criteria to reflect environmental and workplace health and safety requirements; updated foundation skills; added performance evidence to map to performance criteria; updated unit title and code to reflect changes.	Equivalent unit
FWPCOT3247 Select timber for forestry operations	FWPCOT3285 Apply knowledge of wood technology principles to end use applications	Updated unit code and title to clarify task and for compliance.	Equivalent unit
FWPCOT3265 Cut timber or engineered wood product to profile	FWPCOT3299 Cut timber or engineered wood product to profile	Reworded performance evidence for clarity.	Equivalent unit
FWPCOT3266 Dress timber using multi-headed machines	FWPCOT3272 Set up and run multi-head moulder/planer to produce simple profiles	This unit and FWPCOT3273 have replaced FWPCOT3266 for creating specific skills required of operators using multi-head moulder/planer to produce timber with a simple profiles.	No equivalent unit
FWPCOT3266 Dress timber using multi-headed machines	FWPCOT3273 Set up and run multi-head moulder to produce complex profiles	This unit and FWPCOT3272 have replaced FWPCOT3266 for creating specific skills required of operators using multi-head moulder/planer to produce timber with complex profiles.	No equivalent unit
FWPHAR2203 Hook up felled trees (choker) Release 2	FWPHAR2203 Hook up felled trees (choker) Release 1	Minor edits to achieve consistency with wording in another FWPHAR unit; enable flexibility of the unit application; and provide clarification.	Equivalent unit
FWPHAR2204 Perform landing duties (chaser) Release 2	FWPHAR2204 Perform landing duties (chaser) Release 1	Minor edits to achieve consistency with wording in another FWPHAR unit; enable flexibility of the unit application; and provide clarification.	Equivalent unit
FWPHAR2207 Trim and cut harvested trees Release 2	FWPHAR2207 Trim and cut harvested trees Release 1	Minor edits to achieve consistency with wording in another FWPHAR unit; and	Equivalent unit

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Mapping of units of competency

Code and title (Version 4)	Code and title (Version 5)	Comments	Equivalence statement
		enable flexibility of the unit application.	
FWPHAR3201 Monitor log recovery (rigging slinger) Release 2	FWPHAR3201 Monitor log recovery (rigging slinger) Release 1	Minor edits to correct system errors (wrong performance criteria for element 4) and provide clarification.	Equivalent unit
FWPHAR3222 Use on-board computer systems for forwarder Release 2	FWPHAR3222 Use on-board computer systems for forwarder Release 1	Minor changes in text providing clarification without changing the requirements of the unit.	Equivalent unit
FWPSAW2207 Round softwood logs	FWPSAW2211 Round softwood logs	Updated workplace health and safety requirements in performance criteria and performance evidence; removed reference to scanners; updated foundation skills.	Equivalent unit
FWPSAW3201 Treat timber	FWPSAW3242 Treat timber	Reworded application statement and performance evidence for clarity; updated requirements regarding workplace health and safety and environmental protection in performance criteria and performance evidence to match knowledge evidence; updated foundation skills.	Equivalent unit
FWPSAW3202 Produce sawn green boards	FWPSAW3243 Produce sawn green boards	Updated workplace health and safety requirements in performance criteria and evidence; updated foundation skills.	Equivalent unit
FWPSAW3203 Break down logs	FWPSAW3230 Perform primary log breakdown	Updated unit title to focus unit on primary log breakdown process; revised elements performance criteria and evidence; updated foundation skills; clarified assessment requirements.	No equivalent unit
FWPSAW3204 Saw fitches and cants	FWPSAW3231 Perform secondary log breakdown	Updated unit title, application statement, elements and performance criteria to focus unit on secondary log breakdown process; updated foundation skills; clarified assessment requirements clarified assessment conditions.	No equivalent unit
FWPSAW3207 Sharpen band saws	FWPSAW3232 Sharpen band saw blades	Revised and split element 2; clarified performance evidence; minor edits to knowledge	Equivalent unit

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Mapping of units of competency

Code and title (Version 4)	Code and title (Version 5)	Comments	Equivalence statement
		evidence; updated unit code and title for clarity and compliance.	
FWPSAW3208 Sharpen circular saws	FWPSAW3233 Sharpen circular saw blades	Revised performance criteria and performance evidence to clarify tasks; minor updates to knowledge evidence; updated unit code and title for clarity and compliance.	Equivalent unit
FWPSAW3209 Align sawing production systems	FWPSAW3244 Align sawing production systems	Reworded application statement; updated element 3 and further specified tasks in element 4; updated performance criteria, knowledge evidence and assessment conditions for mapping.	Equivalent unit
FWPSAW3210 File and set saws	FWPSAW3234 File and set saw blades for hand saws and circular saws	Clarified the type of sawing equipment for which saw blades are filed and set; updated unit code and title to reflect application and for compliance.	Equivalent unit
FWPSAW3211 Recondition guides	FWPSAW3235 Recondition saw guides	Revised element 2 and performance criteria for clarity; updated performance evidence for mapping; updated unit code and title for clarity and compliance.	Equivalent unit
FWPSAW3212 Sharpen tipped circular saws	FWPSAW3236 Sharpen tipped circular saw blades	Split element 2; minor updates to the knowledge evidence; updated unit code and title for clarity and compliance.	Equivalent unit
FWPSAW3213 Level and tension circular saws	FWPSAW3237 Level and tension circular saw blades	Updated performance criteria to reflect environmental and workplace health and safety requirements; updated foundation skills;; updated unit code and title for clarity and compliance.	Equivalent unit
FWPSAW3214 Join band saw blades	FWPSAW3245 Join band saw blades	Reworded application statement; updated workplace health and safety requirements; removed performance criteria regarding removing blade from machine; added performance criteria to clarify process; split element 2; specified the types of band saw blades in performance evidence.	Equivalent unit

FWP Forest and Wood Products Training Package Version 5.0

Mapping of units of competency

Code and title (Version 4)	Code and title (Version 5)	Comments	Equivalence statement
FWPSAW3217 Hard face saw teeth	FWPSAW3246 Hard face saw teeth	Reworded application; added performance criteria relating to workplace health and safety; revised performance evidence for mapping; updated foundation skills.	Equivalent unit
FWPSAW3218 Replace tungsten tips	FWPSAW3247 Replace tungsten tips	Renamed element; updated performance criteria; revised performance evidence for clarity; updated knowledge evidence.	Equivalent unit
FWPSAW3219 Replace stellite tips	FWPSAW3238 Replace Stellite tips	Revised performance criteria of element 3; clarified performance evidence; minor edits to knowledge evidence; corrected typographical error in the title and changed unit code for compliance.	Equivalent unit
FWPSAW3220 Maintain wide band saw blades	FWPSAW3239 Assess and maintain wide band saw blades	Reworded application statement for clarity; revised performance criteria of element 3; updated performance evidence for mapping; updated knowledge evidence and assessment conditions for clarity and mapping; updated unit code and title to reflect changes and for compliance.	Equivalent unit
FWPSAW3221 Profile saw blanks	FWPSAW3248 Profile saw blanks	Reworded application; added performance criteria relating to workplace health and safety; revised performance evidence for mapping; updated foundation skills.	Equivalent unit
FWPSAW3222 Recondition band mill wheels	FWPSAW3240 Assess and maintain band saw wheels	Updated unit code and title for clarity and compliance; revised workplace health and safety requirements; revised performance evidence for clarity and mapping.	Equivalent unit
FWPSAW3225 Maintain frame saw blades Release 1	Not applicable	Deleted unit. This unit has been deleted as it is no longer required.	Not applicable
FWPSAW3226 Saw logs using CNC optimising systems	FWPSAW3249 Saw logs using CNC optimising systems	Reworded application; added performance criteria relating to workplace health and safety; revised performance evidence for mapping; updated foundation skills.	Equivalent unit

FWP Forest and Wood Products Training Package Version 5.0

Mapping of units of competency

Code and title (Version 4)	Code and title (Version 5)	Comments	Equivalence statement
FWPSAW3227 Select and saw logs in multi-species operations	FWPSAW3250 Select and saw logs in multi-species operations	Reworded Application statement for clarity; updated workplace health and safety requirements in Performance Criteria and Performance Evidence; added new Performance Criteria (PC 1.6, 1.7 and 1.8) to match Knowledge Evidence; updated Foundation Skills.	Equivalent unit
FWPSAW3228 Apply principles of blade design to sawing procedures	FWPSAW3251 Apply principles of blade design to sawing procedures	Updated performance criteria, performance evidence and knowledge evidence to reflect environmental and workplace health and safety requirements; updated foundation skills; updated unit code to reflect changes and meet compliance.	Equivalent unit
FWPTMM2202 Machine material	FWPTMM2204 Machine material	Reworded application; revised performance criteria and evidence for mapping; updated foundation skills; minor edits/updates to knowledge evidence.	Equivalent unit
FWPTMM3201 Convert timber	FWPTMM3210 Convert timber	Reworded application; added performance criteria relating to workplace health and safety; revised performance evidence for mapping; updated foundation skills.	Equivalent unit
FWPTMM3202 Manufacture using joinery machines	FWPTMM3211 Manufacture using joinery machines	Reworded application; added performance criteria relating to workplace health and safety; revised performance evidence for mapping; updated foundation skills	Equivalent unit
FWPTMM3203 Estimate and cost job	FWPTMM3212 Estimate and cost job	Updated industry terminology, workplace health and safety requirements and foundation skills; clarified intent of unit and assessment requirements.	Equivalent unit
FWPWPP2210 Cut panels to profile	FWPWPP2212 Cut panels to profile	Revised performance criteria to include workplace health and safety requirements; revised performance evidence for mapping; updated foundation skills.	Equivalent unit

Appendix 2: Non-endorsable components

a. List of qualification titles and codes

Qualifications in the FWP Forest and Wood Products Training Package Version 5.0	
Code	Title
FWP20316	Certificate II in Sawmilling and Processing
FWP20416	Certificate II in Wood Panel Products
FWP20516	Certificate II in Timber Manufactured Products
FWP30316	Certificate III in Sawmilling and Processing
FWP30416	Certificate III in Wood Panel Products
FWP30516	Certificate III in Timber Manufactured Products
FWP40216	Certificate IV in Timber Processing

b. List of skill set titles and codes

Skill sets in the FWP Forest and Wood Products Training Package Version 5.0	
Code	Title
FWPSS00028	Skill set for a finger jointing plant operator
FWPSS00029	Skill set for a finger jointing moulder operator
FWPSS00030	Skill set for a finger jointing grader operator
FWPSS00039	Skill set for hydraulic maintenance of saw technology
FWPSS00040	Skill Set for pneumatic maintenance of saw technology

c. List of unit titles and codes

Units of competency in the FWP Forest and Wood Products Training Package Version 5.0	
Code	Title
FWPCOT2239	Trim and cut felled trees
FWPHAR2203	Hook up felled trees (choker)
FWPHAR2204	Perform landing duties (chaser)
FWPHAR2207	Trim and cut harvested trees
FWPHAR3201	Monitor log recovery (rigging slinger)
FWPHAR3222	Use on-board computer systems for forwarder

Appendix 3: Industry support

Members of Technical Advisory Committee

The projects started with a total number of 12 Technical Advisory Committee members in August 2018. As the work progressed, more people joined the group, being consulted and updated during the remaining life of the projects. The group extended to 22 members in September 2018, 32 members in October 2018 and 38 in January 2019.

Advances in Wood Machining and Saw Doctoring Project

Organisation	Representing State	Member Name
Large softwood sawmills		
AKD Softwoods	VIC, NSW, QLD	Ashley Britton
AKD Softwoods	VIC, NSW, QLD	Christian Gibbs
AKD Softwoods	VIC, NSW, QLD	Matthew Laity
AKD Softwoods	VIC, NSW, QLD	Steve Baudinette
Boral Timber	NSW	Steven Kostiuk
Hyne Timber	QLD, NSW	Garry Elliott
One Forty One	SA	Neil Hunter
Timberlink	SA, TAS	Joel Langham
Medium size sawmills and timber dressing plants		
Britton Timbers	TAS	Stuart Gale
Inglewood Products Group	WA	Carlo Gosatti
Ryan & McNulty Sawmillers	VIC	Grant Williams
Saw services organisations		
LEITZ Tooling Systems	National	Chris Jones
LEITZ Tooling Systems	National	Charles Joel
LEUCO Australia	National	John Crockett
LEUCO Australia	National	Neil Staggs
LEUCO Australia	National	Paul Lever
Phoenix Supply Company Pty Ltd	National	Chris Carre
Training providers		
Timber Training Creswick	VIC	Charlie Read
Timber Training Creswick	VIC	Rob Rule
Timber Training Creswick	VIC	Steve Archer
Timber Training Creswick - Consultant	VIC	Peter Mikelsen
TABMA Training	National	Pay Teao
TABMA Training	National	June Dunleavy
Workspace Training	NSW	David McElvenny
Employee representative organisation		
Construction Forestry Maritime Mining and Energy Union	SA	Travis Lawson
Construction Forestry Maritime Mining and Energy Union	SA	Luke Riches
Industry training advisory body		
The Food, Fibre & Timber Industries Training Council WA	WA	Trevor Hislop

Sawmill Timber and Process Optimisation Project

Organisation	Representing State	Member Name
Large softwood sawmills		
AKD Softwoods	VIC, NSW, QLD	Cristian Gibbs
AKD Softwoods	VIC, NSW, QLD	David Belfield
AKD Softwoods	VIC, NSW, QLD	Nick Murray
AKD Softwoods	VIC, NSW, QLD	Steve Baudinette
AKD Softwoods	VIC, NSW, QLD	Tom O'Connor
Boral Timber	NSW	Steve Kostiuk
Hyne Timber	NSW, QLD	David Bennetts
Timberlink	SA	Jamie Irving
Timberlink	SA	Joel Langham
Medium size sawmills and timber dressing plants		
Britton Timbers	TAS	Stuart Gale
N.F. McDonnell & Sons	SA	Stuart Husband
Whiteheads Timber	SA	Colin Wooldridge
Inglewood Products Group	WA	Carlo Gosatti
Training providers		
Timber Training Creswick	VIC	Rob Rule
TABMA Training	National	June Dunleavy
Workspace Training	NSW	David McElvenny
Employee representative organisation		
Construction Forestry Maritime Mining and Energy Union	SA	Travis Lawson
Industry training advisory body		
The Food, Fibre & Timber Industries Training Council WA	WA	Trevor Hislop
Other industry stakeholders		
Arch Wood Protection (Aus.) Pty Ltd Trading as Lonza	National	Troy Justice
Margules Groome Consulting	VIC	Mihai Daian
Timber Preservers' Association of Australia (TPAA)	National	Jack Norton

Industry body organisations consulted individually (both projects)

The projects also contacted the following industry stakeholders to inform about the projects and request feedback on the draft units of competency. Support was also sought from these organisations in communicating the projects with their members

Organisation	State	Name
Industry associations		
Australian Forest Products Association	National	Victor Violante
Forest Industries Association of Tasmania	TAS	Craig Jones
Forest Industries Federation WA	WA	Melissa Haslam
Timber NSW	NSW	Maree McCaskill
Timber Queensland	QLD	Mick Stephens
Victorian Association of Forest Industries	VIC	Tim Johnston
Industry training advisory body		
Industry Skills Advisory Council, NT	NT	Neda Aleksic
NSW ITAB for Forestry & Furnishing	NSW	Tim Cleary
The Food, Fibre & Timber Industries Training Council WA	WA	Kay Gerald

Respondents to broad industry consultation and validation (both projects)

Organisation	State	Name
AKD Softwoods	QLD	Christian Gibbs
AKD Softwoods	VIC	David Belfield
Britton Timbers	TAS	Tania Vincent
Britton Timbers	TAS	Stuart Gale
Construction Forestry Maritime Mining and Energy Union	SA	Luke Riches
Construction Forestry Maritime Mining and Energy Union	SA	Travis Lawson
Department of Training and Workforce Development	WA	Frances Parnell
DTM Timber	QLD	Gary Brown
Hyne Timber	NSW	Garry Elliot
Leitz Tooling Systems Pty Ltd	National	Charles Joel
N.F. McDonnell & Sons	SA	Stuart Husband
One Forty One Wood Products	SA	Neil Hunter
Primary Industries Curriculum Maintenance Manager	VIC	Anne Wiltshire
Timber Training Creswick	VIC	Rob Rule
Timber Training Creswick (Consultant)	SA	Peter Mikelsen
Timberlink Australia	SA	Jamie Irving
Workspace Training	NSW	David McElvenny

Appendix 4: Quality assurance report

Section 1 – Cover page

Information required	Detail
Training Package title and code	FWP Forest and Wood Products Training Package V5.0
Number of new qualifications and their titles ¹	0
Number of revised qualifications and their titles	2 FWP31019 Certificate III in Saw Technology FWP31119 Certificate III in Wood Machining
Number of new units of competency and their titles	10 FWPCOT3290 Apply knowledge of timber properties, sawmill operations and sawmilling equipment FWPCOT3291 Apply principles of timber and process optimisation in sawmill operations FWPCOT3292 Calibrate and maintain scanning equipment used in sawmilling operations FWPCOT3293 Use scanning equipment for timber grading FWPSAW4206 Monitor output timber for optimum volume and value recovery FWPSAW4207 Optimise timber production for volume and value recovery FWPCOT3286 Identify levelling and tensioning requirements for saw blades FWPCOT3287 Operate CNC equipment for grinding, tensioning and levelling saw blades FWPSAW3241 Set up and operate production saws used in sawmill operations FWPCOT3289 Load and prove operating program for CNC machine
Number of revised units of competency and their titles	59 See Appendix 1 b.
Confirmation that the panel member is independent of: the Training Package or Training Package components review ('Yes' or 'No') development and/or validation activities associated with the Case for Endorsement ('Yes' or 'No') undertaking the Equity and/or Editorial Reports for the training package products that are the subject of this quality report ('Yes' or 'No')	I confirm that I, Maree Thorne, am independent of: the Training Package or Training Package components review (YES) development and/or validation activities associated with the Case for Endorsement (YES) undertaking the Equity and/or Editorial Reports for the training package products that are the subject of this quality report (YES)
Confirmation of the Training Packages or components thereof being compliant with the <i>Standards for Training Packages 2012</i>	The Training Package components in the Case for Endorsement comprising two (revised) qualifications, 10 new and 59 revised units of

¹ When the number of training products is high the titles can be presented as an attached list.

Information required	Detail
	competency and their associated assessment requirements as part of the <i>FWP Forest and Wood Products Training Package V5.0</i> are compliant with the <i>Standards for Training Packages 2012</i> .
Confirmation of the Training Packages or components thereof being compliant with the <i>Training Package Products Policy</i>	The Training Package components in the Case for Endorsement comprising two (revised) qualifications, 10 new and 59 revised units of competency and their associated assessment requirements as part of the <i>FWP Forest and Wood Products Training Package V5.0</i> are compliant with the <i>Training Package Products Policy</i> .
Confirmation of the Training Packages or components thereof being compliant with the <i>Training Package Development and Endorsement Process Policy</i>	The Training Package components in the Case for Endorsement comprising two (revised) qualifications, 10 new and 59 revised units of competency and their associated assessment requirements as part of the <i>FWP Forest and Wood Products Training Package V5.0</i> are compliant with the <i>Training Package Development and Endorsement Process Policy</i> .
Panel member's view about whether: the evidence of consultation and validation process being fit for purpose and commensurate with the scope estimated impact of the proposed changes is sufficient and convincing	<p>The CfE speaks to the industry critical occupational outcomes of wood machinist and saw technician and acknowledges the limited number of incumbents these qualifications service and the small number of RTO providers (2) and as such, evidence of consultation provided in the CfE appears to be both fit for purpose and commensurate with the scope of the project.</p> <p>Of the 59 revised units, only eight being proposed for endorsement are determined not to be equivalent to previous versions.</p> <p>Given the proposed inclusion of updated imported MEM units from the Metal and Engineering Training Package when endorsed, it is noted that the FWP components of this CfE will require updating to reflect prior to implementation.</p>
Name of panel member completing Quality Report	Maree Thorne
Date of completion of the Quality Report	8 May 2019

Section 2 – Compliance with the Standards for Training Packages 2012

Standards for Training Packages	Standard met 'yes' or 'no'	Evidence supporting the statement of compliance or noncompliance (including evidence from equity and editorial reports)
<p>Standard 1</p> <p>Training Packages consist of the following: AISC endorsed components: qualifications units of competency assessment requirements (associated with each unit of competency) credit arrangements One or more quality assured companion volumes</p>	<p>Yes</p>	<p>The proposed components of the FWP Forest and Wood Products Training Package Version 5.0 meet the requirements of Standard 1.</p> <p>The Training Package components in the Case for Endorsement (CfE) include: two revised qualifications, and 10 new and 59 revised units of competency, each with associated assessment requirements.</p> <p>The CfE specifies that no credit arrangements exist for the Forest and Wood Products Training Package (FWP) qualifications at the time of development.</p> <p>The FWP Forest and Wood Products Training Package V5.0 Companion Volume Implementation Guide (CVIG) provides implementation advice and has been quality assured in this process.</p>
<p>Standard 2</p> <p>Training Package developers comply with the <i>Training Package Products Policy</i></p>	<p>Yes</p>	<p>Skills Impact has complied with the requirements of the <i>Standards for Training Packages 2012</i> for the two revised qualifications, as well as the 10 new and 59 revised units of competency.</p> <p>Supporting evidence includes: Compliance with coding and titling of qualifications and units of competency. Where units of competency have undergone review with changes to performance criteria, knowledge or performance evidence or assessment conditions, codes have been changed to reflect; where reviewed units included in the endorsed components have required minor changes, codes have not been changed and release versions have been identified in mapping.</p> <p>Whilst no FWP components specify entry requirements or pre-requisites, some imported elective units retain prerequisites which are included in elective banks. As noted in the editorial and equity reports and components themselves, MEM unit codes and prerequisites are planned to be updated when the MEM Metal and Engineering Training Package updates are endorsed, and anticipated changes have been incorporated in the proposed draft FWP components.</p> <p>The FWP Companion Volume Implementation Guide, Version 5.0 includes guidance to ensure that learners are not discriminated against and guidance around reasonable adjustment to accommodate learners with disabilities or</p>

Standards for Training Packages	Standard met 'yes' or 'no'	Evidence supporting the statement of compliance or noncompliance (including evidence from equity and editorial reports)
		<p>particular needs. Reference has been made to Disability Standards for Education, 2005.</p> <p>The Companion Volume outlines how Foundation Skills have been addressed in units of competency and emphasises that RTOs must consider them as part of the training and assessment for each unit.</p> <p>Pathway advice is included in the Companion Volume Implementation Guide (CVIG), as is clear information about qualification and unit mapping to inform users of changes to both equivalent and not equivalent qualifications and units.</p> <p>There are no barriers relating to entry requirements or prerequisite units except in a imported and specialist electives, and the availability of revised skill sets provides additional flexibility and pathway options for individuals and learners.</p> <p>The qualifications are clearly written with clear, achievable packaging rules, and a significant range of elective options to cover a broad range of outcomes.</p>
<p>Standard 3</p> <p>Training Package developers comply with the AISC <i>Training Package Development and Endorsement Process Policy</i></p>	<p>Yes</p>	<p>The CfE provides detailed information about Skills Impact's development and endorsement processes of the draft components, including alignment to and compliance with ASIC's Activity Order, comprising two areas of project activity:</p> <p>Advances in wood machining and sawdoctoring Sawmill timber and process optimization</p> <p>The CfE outlines details of consultation undertaken and communication strategies; and evidence of contributing personnel, listed in Appendices, supports evidence of consultation undertaken throughout the development process with stakeholders, including the conduct of five sawmill site visits, and engagement via Technical Advisory Committee (TAC) meetings and email communication with a range of industry stakeholders from both large and smaller forest and wood product organisations, the two training organisations registered to provide these qualifications and the Industry Reference Committee.</p> <p>The CfE evidences more than 20 stakeholders engaged in each TAC, including representatives of the five large softmill sawmills, 6 medium size sawmills and timber dressing plants, saw service organisations and an employee representative organisation, which would appear commensurate with the CfE analysis of the industry sector:</p>

Standards for Training Packages	Standard met 'yes' or 'no'	Evidence supporting the statement of compliance or noncompliance (including evidence from equity and editorial reports)
		<p><i>The sector includes five large, and a small number of medium scale softwood sawmill organisations with operations and facilities across multiple sites and States. The sector also includes around 200, generally smaller sized, specialist hardwood sawmills. Over 75 per cent of the industry sector employment is concentrated in New South Wales, Queensland and Victoria.</i></p> <p>Consultation and validation strategies inclusive of online project information, direct notifications including via industry associations and industry training advisory bodies, newsletters (both Skills Impact and industry publication) and online questionnaires support provision of range of opportunities for engagement with industry and other relevant stakeholders in the development and validation processes.</p> <p>Project(s) information on the Skills Impact website supports invitations to contribute to and assist in development, as well as provide updates of changes made throughout the development and validation processes.</p> <p>Summaries of feedback, responses and actions for both projects are available on the Skills Impact website and were referred to in the quality assurance process to validate stakeholder agreement.</p>
<p>Standard 4</p> <p>Units of competency specify the standards of performance required in the workplace</p>	<p>Yes</p>	<p>All units of competency have been reviewed to ensure they specify the standards of performance required in the workplace.</p>
<p>Standard 5</p> <p>The structure of units of competency complies with the unit of competency template</p>	<p>Yes</p>	<p>As specified in the Editorial Report, the structure of all 69 (new and revised) units reviewed complies with the unit of competency template.</p>
<p>Standard 6</p> <p>Assessment requirements specify the evidence and required conditions for assessment</p>	<p>Yes</p>	<p>All Assessment requirements associated with the units of competency specify the performance evidence and knowledge evidence to be demonstrated for assessment, along with required conditions for assessment as per the appropriate template.</p> <p>Reference to frequency of Performance Evidence ('on at least one occasion') is stated, with some units specifying a volume for performance such as use of 'one or more' types of equipment, as are Assessment Conditions in relation to how evidence may be gathered and provision of necessary resources for meeting assessment requirements.</p> <p>The assessment requirements cross-reference to the unit requirements.</p>

Standards for Training Packages	Standard met 'yes' or 'no'	Evidence supporting the statement of compliance or noncompliance (including evidence from equity and editorial reports)
<p>Standard 7</p> <p>Every unit of competency has associated assessment requirements. The structure of assessment requirements complies with the assessment requirements template</p>	<p>Yes</p>	<p>All draft units of competency have associated assessment requirements, the structures of which comply with the assessment requirements template and the <i>Standards for Training Packages 2012</i>.</p>
<p>Standard 8</p> <p>Qualifications comply with the Australian Qualifications Framework specification for that qualification type</p>	<p>Yes</p>	<p>The QA process confirmed qualification packaging rules specified requirements to ensure AQF outcomes for qualifications are met with the wording:</p> <p><i>Elective units must ensure the integrity of the qualification's Australian Qualification Framework (AQF) alignment and contribute to a valid, industry-supported vocational outcome.</i></p> <p>The performance requirements of listed units of competency as either core or within elective groups, and the options for packaging them, are considered to result in alignment to the AQF level specifications for the qualifications (including the collective complexity of required performance and knowledge).</p>
<p>Standard 9</p> <p>The structure of the information for the Australian Qualifications Framework qualification complies with the qualification template</p>	<p>Yes</p>	<p>The structure of the information for the two revised qualifications complies with the qualification template.</p> <p>No qualifications specify entry requirements. Each qualification specifies a total number of core and elective units to achieve the qualification, including occupational pathways where relevant, and packaging rules are clear, including enabling flexibility of importing units for varying contexts.</p> <p>It is noted in the Editorial Report that imported MEM units listed in the qualifications are the current versions listed on TGA. Skills Impact intends to update all units (and prerequisites) to the latest release of the MEM Training Package once published and has undertaken to ensure the accuracy of that work.</p>
<p>Standard 10</p> <p>Credit arrangements existing between Training Package qualifications and Higher Education qualifications are listed in a format that complies with the credit arrangements template</p>	<p>Yes</p>	<p>The CfE and FWP CVIG indicate that no national credit arrangements exist at this time for any of the proposed qualifications.</p>
<p>Standard 11</p> <p>A quality assured companion volume implementation guide produced by the Training Package</p>	<p>Yes</p>	<p>The training package components in this submission are accompanied by the FWP Forest and Wood Products Training Package Companion Volume Implementation Guide Version 5.0.</p>

Standards for Training Packages	Standard met 'yes' or 'no'	Evidence supporting the statement of compliance or noncompliance (including evidence from equity and editorial reports)
developer is available at the time of endorsement and complies with the companion volume implementation guide template.		The FWP CVIG complies with the companion volume implementation guide template included in the 2012 Standards and was reviewed in this QA process, including for alignment to the CfE and to the proposed endorsed components.
<p>Standard 12</p> <p>Training Package developers produce other quality assured companion volumes to meet the needs of their stakeholders as required.</p>	NA	No additional companion volumes are produced

Section 3 – Compliance with the training package quality principles

Note: not all training package quality principles might be applicable to every training package or its components. Please provide a supporting statement/evidence of compliance or non-compliance against each principle.

Quality principle 1. Reflect identified workforce outcomes

Key features	Quality principle is met: Yes / No or N/A	Evidence demonstrating compliance/non compliance with the quality principle Please see examples of evidence in the <i>Training Package Development and Endorsement Process Policy</i>
Driven by industry's needs	Yes	<p>The CfE provides information about the extent of, and 'inclusive' strategies for industry consultation and advice and the rationales for the changes that occurred in the review. It speaks to recognising changes in the industry and in skill requirements including:</p> <ul style="list-style-type: none"> modernisation of the industry evolution in the complexities of specific wood machinist and saw doctor job roles differentiation of the role of a wood machinist in other industry sectors to the complexities of the job role in sawmilling or timber processing, and emergence of new industry roles such as optimisation technicians and managers a need to attract new (young) entrants to the industry against 'old fashioned' perceptions of limited professional opportunities. <p>There is evidence in the CfE and proposed endorsed components that the SSO has addressed industry's requirements (for example, changing terminology of Saw Doctor to Saw Technician to '<i>reflect the modern and broader job functions of this occupation</i>') and has undertaken appropriate stakeholder consultation including consideration of the 2015 training package reforms, in the development and validation process for the endorsed components submitted.</p>
<p>Compliant and responds to government policy initiatives</p> <p>Training package component responds to the COAG Industry and Skills Council's (CISC) training package-related initiatives or directions, in particular the 2015 training package reforms. Please specify which of the following CISC reforms are relevant to the</p>	Yes	<p>The endorsed components respond to the COAG Industry and Skills Council's (CISC) training package reforms, specifically:</p> <p>ensure obsolete and superfluous qualifications are removed from the system</p> <p>Whilst no qualifications have been removed from the system, the CfE does specify the removal FWP and BSB elective units considered to be job roles/skills '<i>no longer relevant to current sawmill environments</i>', and the deletion of one unit of competency.</p> <p>foster greater recognition of skill sets</p> <p>The endorsed components will be supported by three (existing, and revised) skill sets.</p>

Key features	Quality principle is met: Yes / No or N/A	Evidence demonstrating compliance/non compliance with the quality principle Please see examples of evidence in the <i>Training Package Development and Endorsement Process Policy</i>
<p>training product and identify supporting evidence: ensure obsolete and superfluous qualifications are removed from the system</p> <p>ensure that more information about industry's expectations of training delivery is available to training providers to improve their delivery and to consumers to enable more informed course choices</p> <p>ensure that the training system better supports individuals to move easily from one related occupation to another</p> <p>improve the efficiency of the training system by creating units that can be owned and used by multiple industry sectors</p> <p>foster greater recognition of skill sets</p>		<p>improve the efficiency of the training system by creating units that can be owned and used by multiple industry sectors</p> <p>The proposed qualifications import a wide range of units of competency from other training packages (MSS, MEM, BSB, MSF) to avoid sector specific duplication. Response to stakeholder feedback sited in the register for development of a 'root cause analysis' unit was addressed through the identification and elective inclusion of an existing MSM unit in these and other FWP minor change qualifications.</p> <p>ensure that the training system better supports individuals to move easily from one related occupation to another</p> <p>FWP and imported elective units are used across FWP qualifications and would enable transition and credit between FWP qualifications (for example use of common units as core or elective in proposed qualifications can enable transition from wood machining to saw technician or vis versa without impacting the integrity of the individual occupational outcomes); flexible packaging rules support diversity of elective options to move within and across sectors.</p>
<p>Reflect contemporary work organisation and job profiles incorporating a future orientation</p>	<p>Yes</p>	<p>The CfE outline of communication strategies and contributing personnel listed in the Appendices, supports evidence of consultation undertaken throughout the development process with a range (national) of stakeholders, including industry and subject matter experts (SME), training organisations and the Industry Reference Committee, to ensure proposed endorsed components reflect contemporary work organisation and job profiles.</p> <p>The CfE cites consultation included site visits evidencing efforts to reflect and align actual and genuine organisational job profiles into the development of the training package products.</p>

Quality principle 2: Support portability of skills and competencies including reflecting licensing and regulatory requirements

Key features	Quality principle is met: Yes / No or N/A	Evidence demonstrating compliance with the quality principle Please see examples of evidence in the <i>Training Package Development and Endorsement Process Policy</i>
Support movement of skills within and across organisations and sectors	Yes	<p>The draft Units of Competency and associated Assessment Requirements are written in a manner that allows adaptability and flexibility in relation to a range of industry variables. This enables the units to be contextualised to meet the various needs of a wide range of production contexts.</p> <p>All qualifications include a proportionately significant number of elective options, including options to import units from other training packages, to enable movement within organisations, within each sector, and through inclusion of import units, to other sectors.</p> <p>Endorsed components will be supported by three revised skill sets to provide entry and skill movements within and across the diversity of the saw milling industry sector.</p>
Promote national and international portability	Yes	<p>Proposed endorsed components and the accompanying CVIG V5.0 promote national legislative requirements (safety, environmental protection and sustainability) and reference national standards and codes of practice where applicable.</p>
Reflect regulatory requirements and licensing	Yes	<p>The CfE identifies that no licencing requirements are required to conduct the job roles described by the revised qualifications and further specifies that:</p> <p><i>'Learners of the revised and new units of competency are also expected to meet workplace and legal obligations related to work health and safety, apply relevant standards and perform activities according to workplace procedures and operational requirements. These requirements are explicitly reflected throughout the units'</i></p> <p>This is confirmed in the Application section of the units of competency which include the wording:</p> <p><i>'All work must be carried out to comply with workplace procedures, according to state/territory health and safety regulations, legislation and standards that apply to the workplace.'</i></p> <p>The CVIG specifies that imported units with licencing or regulatory requirements must be delivered and assessed according to the requirements of the parent training package.</p>

Quality principle 3: Reflect national agreement about the core transferable skills and core job-specific skills required for job roles as identified by industry

Key features	Quality principle is met: Yes / No or N/A	Evidence demonstrating compliance with the quality principle
		Please see examples of evidence in the <i>Training Package Development and Endorsement Process Policy</i>
Reflect national consensus	Yes	The CfE evidences a national consultation process providing stakeholders with opportunities to participate via a number of communication channels (involvement on the TAC, email and online, direct engagement via site visits, etc) to capture ongoing feedback on the endorsed components throughout the duration of the review. The CfE Appendix 2 reflects a range of respondent stakeholders including national industry participants, state training authorities, industry /content expert and training practitioners.
Recognise convergence and connectivity of skills	Yes	Units listed in the qualifications include imported units from other nationally endorsed training packages.

Quality principle 4: Be flexible to meet the diversity of individual and employer needs including the capacity to adapt to changing job roles and workplaces

Key features	Quality principle is met: Yes / No or N/A	Evidence demonstrating compliance with the quality principle
		Please see examples of evidence in the <i>Training Package Development and Endorsement Process Policy</i>
Meet the diversity of individual and employer needs	Yes	The assessment conditions of all of the units specify that assessment must take place in a workplace, or ' <i>demonstrated in an environment that accurately represents workplace conditions</i> '. This allows for assessment to occur in a range of different contexts including a simulated environment if required. All qualifications include elective choices, and options to choose two or more units from any current training package or accredited course, suitable to vocational requirements and context – this ensures that each qualification can be packaged to suit different contexts and a range of employer and individual needs.
Support equitable access and progression of learners	Yes	Neither qualification in the CfE specifies entry requirements. Users, including RTOs can determine which candidates are suitable and appropriate for enrolment. Although not a component of this endorsement submission, three revised skill sets allow for entry and exit points into and between qualifications.

Key features	Quality principle is met: Yes / No or N/A	Evidence demonstrating compliance with the quality principle Please see examples of evidence in the <i>Training Package Development and Endorsement Process Policy</i>
		<p>No FWP components have prerequisite units which could limit access or progression of learners and only imported units of competency included as electives, have prerequisites as determined by their parent training package.</p> <p>As noted in the Equity Report: <i>The two revised Certificate III qualifications provide a pathway to the Certificate IV in Timber Processing. A pathway from certificates I and II to both revised certificates also exists within the FWP Training Package.</i></p> <p><i>Information and a detailed diagram outlining pathway options is provided in the FWP Companion Volume Implementation Guide (p39-44).</i></p>

Quality principle 5: Facilitate recognition of an individual's skills and knowledge and support movement between the school, vocational education and higher education sectors

Key features	Quality principle is met: Yes / No or N/A	Evidence demonstrating compliance with the quality principle Please see examples of evidence in the <i>Training Package Development and Endorsement Process Policy</i>
Support learner transition between education sectors	Yes	<p>In additional work undertaken by the projects and outlined in the CfE, changes were made (addition of elective units) to other FWP qualifications at the school based pre-apprenticeship level to better facilitate progression into the Certificate III qualifications proposed for endorsement.</p> <p>In addition, as noted in the Equity Report, <i>'the two revised Certificate III qualifications provide a pathway to the Certificate IV in Timber Processing'</i> and <i>'FWP and MEM units covering skills in troubleshooting hydraulic and pneumatic systems were added as electives to FWP40216 Certificate IV in Timber Processing to provide a career pathway for Saw Technicians towards higher-level technical jobs'</i></p> <p>The CVIG provides information about the pathways and opportunities for transition or movement between (upwards and crossways) qualifications, including between school and VET.</p> <p>The CfE notes that there are currently no nationally applicable credit arrangements between FWP qualifications proposed for endorsement and higher education qualifications.</p>

Quality principle 6: Support interpretation by training providers and others through the use of simple, concise language and clear articulation of assessment requirements

Key features	Quality principle is met: Yes / No or N/A	Evidence demonstrating compliance with the quality principle Please see examples of evidence in the <i>Training Package Development and Endorsement Process Policy</i>
Support implementation across a range of settings	Yes	Industry advice about delivery is provided via the FWP Forest and Wood Products Training Package Version 5.0 Companion Volume Implementation Guide (CVIG) which has been quality assured and is ready for publication at the same time as the Training Package. The CVIG provides comprehensive advice about delivery requirements including reasonable adjustments, foundation skills, and progressions and pathways between qualifications
Support sound assessment practice	Yes	The draft Units of Competency and associated Assessment Requirements have consistent depth and breadth, including references to volume and frequency of Performance Evidence and include Assessment Conditions specifying how evidence must be gathered. Units are written in a manner that allows adaptability and flexibility which enables the units to be contextualised to meet the varied and broad needs of the FWP industries
Support implementation	Yes	