

Responding and Assisting in Bushfires Project

Summary of Feedback, Responses and Actions



28 March 2022

Draft new units of competency for skills in post-bushfire cleaning operations and chainsaw operations were made available on the [Skills Impact website](#) for stakeholder review from 14 February to 23 March 2022. Please visit the website to view a full list of the documents that were submitted for consultation during this phase.

Feedback was received via email, the Skills Impact Feedback Hub, webinars and phone as follows:

	NSW	NT	Qld	SA	TAS	VIC	WA	National
Industry (employer / employee)								
Industry association*								
Union*								
Registered Training Organisation (RTO)								
Government department								

** More than 40 stakeholders were contacted directly via email to engage in project consultations. These individuals included representatives from forest and arboriculture employers and associations, fire and emergency services agencies, registered training organisations, relevant Skill Services Organisation and skills advisory bodies. The Australasian Fire and Emergency Service Authorities Council (AFAC) and the majority of forest industry associations and skills advisory bodies confirmed that the project's information and links to draft components were distributed to their members to encourage participation. Project reports and invitations to offer input were also provided to the Australian Forest Products Association's Safety Committee and the Tasmanian Forest Industry Fire Management Committee (FIFMC). Along with the news updates issued by Skills Impact, editorial and advertisement messages about the project and its consultations were published in external industry publications such as Daily Timber News and Leaflet. Representatives from the Construction Forestry Maritime Mining and Energy Union (CFMMEU) were kept informed of the project and encouraged to communicate it to members. No specific feedback has been provided on the components by agencies, industry associations or CFMMEU at this stage.*

Feedback received during the 'drafts available' period for the units has been positive, with minor changes or updates suggested by stakeholders.

Below is a summary of the feedback raised for the draft units developed and reviewed for the Responding and Assisting in Bushfire Project, and how these have been dealt with. This involves a consideration of the information provided, views of industry stakeholders and from people who are part of the Subject Matter Expert Working Group process. Resolutions are constructed to consider the needs and views of stakeholders to the extent possible, and to comply with the *Standards for Training Package 2012*. The resolutions may represent a compromise on one or more stakeholder views with the aim of a workable outcome for industry, State and Territory Training Authorities (STAs) and training providers.

Acronyms - PC – Performance Criteria, PE – Performance Evidence, KE – Knowledge Evidence, AC – Assessment Conditions, SMEs – Subject Matter Experts, AQF – Australian Qualification Framework

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Summary of Feedback on Draft Units of Competency

Skills for Vegetation Clearing and Clean-up Operations in Bushfire Zone – New Units of Competency

General Comments

Stakeholder Comments and Identified Issues		Consideration and Proposed Resolution
Employer (SA)	No suggestions for improvement - both units look good.	Noted. We appreciate your feedback and support.
RTO (VIC)	Both units are critical in that they address an ongoing priority regarding the safety of staff working in bushfire impacted area. There is still a training and skill deficit in terms of safety for those who respond to or work with the outcomes of tree hazard identification and require dealing with falling trees, i.e., a safety unit at level 2 and 3.	Noted. We appreciate your feedback and support.
Employer (NSW)	Both units are suitable for the intended learners and assigned AQF level. The terminology used in the units is fine.	Noted. We appreciate your feedback and support.
Employer (TAS)	I did have a look at the units. Nothing major in regards to feedback, however I was wondering whether the AFAC Managing tree hazards document was used when compiling the unit? I am just wondering whether its worth incorporating the identification and marking procedure (or reference to it) as in the past different States would use different symbols as you would be aware but now we have a consistent approach.	<p>Thank you for your review and comments. Feedback received during the 'Drafts Available' stage suggested that an additional new unit is required to address the skills of all personnel authorised to perform tree hazard assessment at different stages of post-bushfire recovery, which require varying hazard control measures and consideration of tree health assessment. These two units are:</p> <ul style="list-style-type: none"> • <i>FWPFIR4XXX Conduct tree hazard assessment post-fire</i> • <i>AHCARB6XXX Conduct complex tree hazard and health assessment post-fire</i> <p>Both units incorporate AFAC's managing tree hazards concepts and requirements.</p> <p>The AQF level 4 unit includes tree hazard identification and marking procedures.</p>

FWPCOT3XXX Apply communication protocols in vegetation clearing and clean-up operations in bushfire zone

Stakeholder Comments and Identified Issues		Consideration and Proposed Resolution
Employer (SA)	Regarding Application: <ul style="list-style-type: none"> Training needs to be broad enough to apply in each state and agencies within each state 	Adopted. Unit has been prepared to address the needs of a national audience.
	Regarding Performance Criteria 1.1: <ul style="list-style-type: none"> Include reference to the Australasian Inter-service Incident Management System (AIIMS) command and communication structure, and nuances between states and agencies within states. 	Adopted. Included reference to the Australasian Inter-service Incident Management System (AIIMS) command and communication structure, and nuances between states and agencies within states included in Knowledge Evidence PC 1.1 reworded to read - <i>Recognise roles and authority of personnel in relevant command and communication structure and communications plan</i>
Employer (VIC)	Regarding Knowledge Evidence: <ul style="list-style-type: none"> Add new item - Operational hazards and safe systems of work for personnel working bushfire affected areas 	Adopted. Replaced KE <i>'safe working system and workplace procedures in bushfire vegetation operations'</i> with <i>'Operational hazards and safe systems of work for personnel working bushfire affected areas'</i>
RTO (VIC)	Regarding unit code: <ul style="list-style-type: none"> Suggest FWPFIR3002 - This would be in line with new sector codes implemented in recent new qualifications Cert 2 & 3 in Forest Operations 	Adopted. The unit code has been updated to reflect the Fire Control (FIR) unit sector. The last three digits are assigned sequentially and according to their availability (if they are not assigned to any other unit). This unit will be assigned the numbers 002 if they are available.
	Regarding unit title: <ul style="list-style-type: none"> Replace "in" with "during", i.e. Apply communication protocols during vegetation clearing and clean-up operations in bushfire zone 	Adopted. Edited the title to read - <i>FWPCOT3XXX Apply communication protocols during post-bushfire vegetation clearing and clean-up operations</i>
	Regarding Application: <ul style="list-style-type: none"> Suggest using the correct terminology as follows "recognise the command and control structure, and the communications plan that applies to a bushfire impacted area" Include "and agency approved volunteers" in the second paragraph Replace "bushfire zone" with "bushfire impacted area" 	Adopted. We appreciate your feedback and support.
	Regarding Unit Sector: <ul style="list-style-type: none"> Use Fire Control (FIR) for consistency with the other fire units from the Cert III in Forest Operations 	Adopted. Unit code has been changed to reflect Fire Control (FIR) sector.

Stakeholder Comments and Identified Issues		Consideration and Proposed Resolution
	Regarding Performance Criteria 2.2: <ul style="list-style-type: none"> Replace “monitor” with “check” and “as required” with “where required” 	Adopted. We appreciate your feedback and support.
	Regarding Performance Criteria 3.1: <ul style="list-style-type: none"> Replace “within own scope of responsibility” with “within own level of authority” 	Adopted. We appreciate your feedback and support.
RTO (VIC)	It is acknowledged that the assessment conditions allow for assessment of skills in a simulated environment. However, specifying that the Performance Evidence be conducted on the fire ground or in the immediate/short term post-fire recovery phase may not be practical to complete the training course.	Adopted. Amended PE to read - <i>There must be evidence that the individual participated in a bushfire vegetation clearing or clean-up operation in two different actual or simulated bushfire impacted areas.</i>
Employer (NSW)	Regarding Application: <ul style="list-style-type: none"> Add “staff and” volunteers in the second paragraph 	Adopted. We appreciate your feedback and support.
	Regarding Performance Criteria 2.1: <ul style="list-style-type: none"> Add “concisely” 	Adopted. We appreciate your feedback and support.
	Regarding Performance Criteria 2.1: <ul style="list-style-type: none"> Replace “Check” with “Confirm” The only thing you might like to reiterate is what I call “closing the loop” As part of good radio protocol, the person receiving the information needs to confirm that by repeating the message or simply confirming that the message is received and understood. 	Adopted. Amended PC to read - <i>Confirm recipient understanding of information by requesting to repeat message or confirm that message is received and understood and adjust mode of communication where required</i>

FWPCOT5XXX Assess hazard and health of fire damaged or fire affected trees

Stakeholder Comments and Identified Issues		Consideration and Proposed Resolution
Employer (VIC)	Regarding Knowledge Evidence: <ul style="list-style-type: none"> Delete “reduction of more than half of wood at any cross section of the trunk or major limb 	Adopted. Thank you for your feedback and support.
	<ul style="list-style-type: none"> Add the following points under “characteristics of hazardous trees: 	Adopted. KE reworded as follows: <ul style="list-style-type: none"> <i>characteristics of hazardous trees including:</i>

Stakeholder Comments and Identified Issues	Consideration and Proposed Resolution
<ul style="list-style-type: none"> • cavities and hollows in the main trunk and root buttress area • assessment of the xylem in the trunks and stems to ensure distribution of water and minerals from the roots to leaves • establish the condition of the root plate to establish the extent of damage from the fire • identification of fungi • tree species identification 	<ul style="list-style-type: none"> • <i>dead and/or decaying tree or major branches</i> • <i>suspected loose or broken branches</i> • <i>evidence of longitudinal or torsion fractures</i> • <i>evidence of roots lifting or disturbed root system</i> • <i>significant lean with indicators of failure</i> • <i>cavities and hollows in the main trunk and root buttress area</i> • <i>xylem dysfunction in the trunks and stems impacting on distribution of water and minerals from the roots to leaves</i> • <i>root plate damage</i> • <i>presence of fungi</i>
<ul style="list-style-type: none"> • Replace “longitudinal cracking” with “longitudinal or torsion fractures” 	Adopted.
<ul style="list-style-type: none"> • Add the following points under “techniques for assessing post fire survivability”: <ul style="list-style-type: none"> • use of high level diagnostic tools such as Sonic Tomography, Resistance Drills etc • assessment of the xylem in the trunks and stems to ensure distribution of water and minerals from the roots to leaves • assessment of feeder and structural roots to determine their health and structure 	Adopted. KE reworded as follows: <ul style="list-style-type: none"> • <i>techniques for assessing post fire survivability and tree health including:</i> <ul style="list-style-type: none"> • <i>signs and symptoms of disease</i> • <i>methods of detecting decay and structural defects in trees</i> • <i>use of basic diagnostic tools</i> • <i>testing equipment to detect decay, disease and scope of tree problems</i> • <i>factors affecting the likelihood of tree failure</i> • <i>use of diagnostic tools including Sonic Tomography and Resistance Drills</i> • <i>assessment of the xylem in the trunks and stems to ensure distribution of water and minerals from the roots to leaves</i> • <i>assessment of feeder and structural roots to determine health and structure</i>
<ul style="list-style-type: none"> • Add the following point under “risk control measures: <ul style="list-style-type: none"> • habitat pruning 	Adopted.
<ul style="list-style-type: none"> • Replace “Global Positioning System (GPS)” with “Global Navigation Satellite System (GNSS)” 	Adopted.
<ul style="list-style-type: none"> • Add new item: <ul style="list-style-type: none"> • use of Global Information Systems (GIS) to produce survey plans 	Adopted. Reworded as ‘ <i>techniques for use of Global Information Systems (GIS) to produce survey plans</i> ’

Stakeholder Comments and Identified Issues	Consideration and Proposed Resolution
<p>Regarding Assessment Conditions:</p> <ul style="list-style-type: none"> • Delete GPS and add the following: <ul style="list-style-type: none"> • GNSS for recording position of trees • GIS for preparing Survey Plans • Diagnostic Tools • Assessment of the xylem • Assessment of Root Plate feeder and structural roots 	<p>Adopted. Reworded as follows:</p> <ul style="list-style-type: none"> • <i>resources, equipment and materials:</i> <ul style="list-style-type: none"> • <i>fire damaged or fire affected trees</i> • <i>communications systems relevant to work activity</i> • <i>equipment and materials relevant to work activity</i> • <i>personal protective equipment relevant to work activity</i> • <i>Global Navigation Satellite System (GNSS)</i> • <i>GIS</i> • <i>diagnostic tools for assessment of the xylem and root plate feeder and structural roots</i>
<ul style="list-style-type: none"> • This unit should be set at the advanced diploma level for complex tree hazard and health assessments conducted by arborists and potentially by foresters. A second unit is needed to deal with the hazard and immediate situation, for people on the ground soon after the passage of fire to make the tree hazard assessments and institute immediate actions to prevent harm and hazards, and deal with the situations at hand. 	<p>Thank you for your review and comments. This unit has been re-coded and re-named to better represent its purpose (e.g. <i>AHCARB6XXX Conduct complex tree hazard and health assessment post-fire</i>) and an additional new unit has been drafted to address the skills of personnel authorised to perform tree hazard assessment during the early stages of bushfire recovery operations. This additional unit is <i>FWPFIR4XXX Conduct tree hazard assessment post-fire</i>.</p>
<p>Employer (VIC)</p> <p>Regarding Application:</p> <ul style="list-style-type: none"> • Shouldn't this also include the ability to assess trees for potential before becoming fire affected? e.g. in preparation for Fuel reduction burning, strategic firebreak construction or backburning during fire operations. 	<p>Thank you for this question. Assessing trees for potential before becoming fire affected appears to be a job to prevent fire, which is distinct from the post-fire task and job roles addressed by this unit. Thus, they cannot be covered in the same unit of competency. However, your suggestion has been noted and the need for a separate unit will be assessed in a future project.</p>
<p>Regarding Prerequisite Units:</p> <ul style="list-style-type: none"> • Shouldn't these include some basic fire & safety qualifications? e.g. PUAFIR210 Prevent Injury PUAWHS002 Maintain Safety at an incident scene PUAFIR204 Respond to Wildfire 	<p>Organizations may consider offering PUAFIR210, PUAWHS002, and PUAFIR204 along with this unit of competency as a skill set to new learners, but they should not be used as prerequisite units unless the learner must be deemed competent in these units before being assessed for the unit in question. This is generally the case when the unit contains skills or knowledge that cannot be obtained without that prior competence.</p>
<p>Regarding Performance Criteria:</p> <ul style="list-style-type: none"> • 2.1 Conduct a hazard assessment of the route to the tree and area around the tree to determine it is safe to approach. 	<p>Adopted. We appreciate your feedback and support.</p>

Stakeholder Comments and Identified Issues		Consideration and Proposed Resolution
	<p>Regarding Performance Criteria 4.3:</p> <ul style="list-style-type: none"> Should also include manual mapping option 	Adopted
	<p>Regarding “identified risks” under Performance Evidence:</p> <ul style="list-style-type: none"> Conducted a dynamic risk assessment when entering the fireground and approaching the hazardous tree/s 	Adopted
	<p>Regarding “dead and/or decaying tree or major branches” under Knowledge Evidence:</p> <ul style="list-style-type: none"> Evidence of previous damage, including burn or mechanical scars 	Adopted
	<p>Regarding Global Positioning System (GPS) under Knowledge Evidence:</p> <ul style="list-style-type: none"> Add “and maps” 	Adopted
RTO (VIC)	<p>Level 5 is a little high for this unit and the prerequisites may impede training for agencies/fire rescue personnel and independent contractors working in tree hazard assessment.</p>	<p>Thank you for this comment. The AQF level for this proposed new unit has been discussed with key stakeholders and it has been agreed that two units of competency are required to address skill needs for different groups of individuals involved in post-bushfire vegetation clearing and clean-up operations, both immediately after the fire and months later:</p> <ul style="list-style-type: none"> One AQF level 4 unit focusing on the skills of crews arriving during the early weeks of the bushfire recovery phase to assess and subsequently eliminate or isolate the danger of fire damaged or fire affected trees One AQF level 6 unit focusing on professional arborists’ high-level skills to assess any residual risks and the health and values of fire damaged or fire affected tress, and to recommend the appropriate treatment. <p>Thus, a second unit at the AQF level 4 has been drafted and will be made available for feedback during Validation.</p> <p>The two units are:</p> <ul style="list-style-type: none"> <i>FWPFIR4XXX Conduct tree hazard assessment post-fire</i> <i>AHCARB6XXX Conduct complex tree hazard and health assessment post-fire</i>
RTO (WA)	<p>Regarding Prerequisite Unit:</p> <ul style="list-style-type: none"> not sure that having prerequisites are a good thing. Are these units necessary? 	<p>Thank you for your question. As mentioned above, a second unit at the AQF level 4 has been drafted and this unit does not include prerequisites.</p> <p>As to this unit (AQF level 6), the cohort anticipated to undertake this training would be professional arborists with a diploma. Additionally,</p>

Stakeholder Comments and Identified Issues	Consideration and Proposed Resolution
	following further consultations, it has been determined that the proposed prerequisites contain skills and knowledge that are not addressed in sufficient detail in this unit but are essential to successfully complete this unit. As a result, it has been recommended that both AHCARB units remain a prerequisite unit.
<p>Regarding all Performance Criteria</p> <ul style="list-style-type: none"> While 'fire damaged or fire affected' is included in each element I think it might be an overduplication including it again in the PC's. I have deleted and replaced with 'the' (or something similar?). 	Adopted
<p>Regarding Performance Criteria 2.7:</p> <ul style="list-style-type: none"> Is there a specific classification? 	<p>Thank you for this question. A classification is provided by the Australasian Fire and Emergency Services Authorities Council (AFAC) in the Managing Tree Hazards publication 24 October 2018. This identifies three classes of tree hazards. These are:</p> <ol style="list-style-type: none"> Clear and present danger CPD (also known as a 'cross tree' ⊗): Potential CPD – protection not assured (also known as a 'slash tree' ⊙): Potential CPD – protection assured (also known as a 'circle tree' ⊝):
<p>Regarding Performance Criteria 3.1 and 3.2:</p> <ul style="list-style-type: none"> How and why? 	<p>Thank you for this question. The two PCs have been combined and reworded as follows:</p> <p><i>3.1 Determine fire impact on soil and its properties, and subsequent effects of soil on tree root and sap function</i></p> <p>New knowledge items have also been added to the KE as follows:</p> <ul style="list-style-type: none"> <i>factors that influence fire impact on soil and its properties, including:</i> <ul style="list-style-type: none"> <i>fire spread</i> <i>fire direction</i> <i>fire intensity</i> <i>fuel load</i> <i>fire effects on soil and its properties, including:</i> <ul style="list-style-type: none"> <i>increased soil hydrophobicity</i> <i>increased soil erosion</i> <i>changes in properties such as pH, organic carbon and microbial community</i> <i>techniques for testing soil properties, including pH, organic carbon and microbial community</i>

Stakeholder Comments and Identified Issues	Consideration and Proposed Resolution
<p>Regarding Performance Evidence:</p> <ul style="list-style-type: none"> I think only two trees is not enough and have suggested five. I agree different species (if available) but not to nominate different areas (why?) 	<p>Adopted. PE has been amended to read: <i>There must be evidence that the individual has assessed the hazard, health and value status of five fire damaged or fire affected trees, each of which must be a different species.</i></p>
<p>Regarding Performance Evidence item “assessed post-fire survivability of the tree”:</p> <ul style="list-style-type: none"> How is this done or measured? 	<p>Thank you for this question. The ways of assessing post-fire survivability are identified in the Knowledge Evidence. This states that <i>techniques for assessing post fire survivability and tree health include:</i></p> <ul style="list-style-type: none"> <i>signs and symptoms of disease</i> <i>methods of detecting decay and structural defects in trees</i> <i>use of basic diagnostic tools</i> <i>testing equipment to detect decay, disease and scope of tree problems</i> <i>factors affecting the likelihood of tree failure</i> <i>use of diagnostic tools including Sonic Tomography and Resistance Drills</i> <i>assessment of the xylem in the trunk and stems to ensure distribution of water and minerals from the roots to leaves</i> <i>assessment of feeder and structural roots to determine health and structure</i>
<p>Regarding Knowledge Evidence:</p> <ul style="list-style-type: none"> There are knowledge items in relation to the effects of fire on trees, xylem dysfunction in the trunk and stems, assessment of the xylem in the trunk and stems that I do not understand. This may be why its level 5 (diploma). 	<p>Thank you for this comment. This unit is intended to professional arborists who apply high-level skills to assess any residual risks and the health and values of fire damaged or fire affected trees, and to recommend the appropriate treatment. Thus, the knowledge items mentioned are pertinent to Diploma level professional arborists.</p> <p>A second unit has been drafted at the AQF level 4 that focuses on the skills of crews arriving during the early weeks of the bushfire recovery phase to assess and subsequently eliminate or isolate the danger of fire damaged or fire affected trees</p>
<p>Employer (NSW)</p> <p>Regarding Performance Criteria 2.5:</p> <ul style="list-style-type: none"> Clarify wording <p>Regarding Performance Criteria 2.7:</p> <ul style="list-style-type: none"> Is there a specific classification? 	<p>Adopted. PC has been reworded as <i>2.5 Assess external factors that may cause tree or its limbs and branches to fall</i></p> <p>Thank you for this question. A classification is provided by the Australasian Fire and Emergency Services Authorities Council (AFAC) in the Managing Tree Hazards publication 24 October 2018. This identifies three classes of tree hazards. These are:</p> <ol style="list-style-type: none"> Clear and present danger CPD (also known as a ‘cross tree’ ☒):

Stakeholder Comments and Identified Issues		Consideration and Proposed Resolution
		<p>2. Potential CPD – protection not assured (also known as a ‘slash tree’ ☉):</p> <p>3. Potential CPD – protection assured (also known as a ‘circle tree’ ○):</p>
	<p>Regarding Performance Criteria 3.1 and 3.2:</p> <ul style="list-style-type: none"> Never heard of this. How do you do it and when do you do it? 	<p>Thank you for this question. The two PCs have been combined and rewarded as follows: <i>3.1 Determine fire impact on soil and its properties, and subsequent effects of soil on tree root and sap function</i></p> <p>New knowledge items have also been added to the KE as follows:</p> <ul style="list-style-type: none"> <i>factors that influence fire impact on soil and its properties, including:</i> <ul style="list-style-type: none"> <i>fire spread</i> <i>fire direction</i> <i>fire intensity</i> <i>fuel load</i> <i>fire effects on soil and its properties, including:</i> <ul style="list-style-type: none"> <i>increased soil hydrophobicity</i> <i>increased soil erosion</i> <i>changes in properties such as pH, organic carbon and microbial community</i> <i>techniques for testing soil properties, including pH, organic carbon and microbial community</i>
RTO (VIC)	<p>Regarding Prerequisite Units:</p> <ul style="list-style-type: none"> Both these suggested prerequisites AHC units are core units in the current AHC50520 Dip Arb. Neither of these AHC units have prerequisites. AHCARB408 assesses and tests tree for defects and risk of failure to report to specialist. AHCARB513 assesses the health, value (including calculation of amenity value) and risks. There is overlap with the KE between these two AHC units and some duplication of KE in FWPCOT5XXX in both units. The outcomes of AHCARB513 and FWPCOT5XXX do overlap. The unit AHCARB513 should enable a tree assessment of fire damaged trees although fire/impact of fire is not specified in the unit. FWPCOT5XXX does fill that gap. Of the two AHC units suggested AHCARB408 appears to be a better fit as a prerequisite. Prerequisites may act as a barrier to the uptake of training in terms of time and cost for the target cohort. 	<p>Thank you for this comment. Following further consultations, it has been determined that this unit should focus on professional arborists’ high-level skills to assess any residual risks and the health and values of fire damaged or fire affected tress, and to recommend an appropriate treatment. Additionally, it has also been suggested that the skills and knowledge described in this unit would correspond to AQF level 6.</p> <p>The cohort anticipated to undertake this training would be professional arborists with a diploma.</p> <p>The unit AHCARB513 contains skills and knowledge that are not addressed in sufficient detail in this unit but are essential to successfully complete this unit. As a result, it has been recommended that AHCARB513 should remain a prerequisite unit.</p>

Stakeholder Comments and Identified Issues		Consideration and Proposed Resolution
	Question regarding who is expected to undertake this training (skilled forestry operators and arborists involved in post-fire vegetation management)?	
	Another question as to which qualification will host this unit - (FWP50121)?	<p>Thank you for this question. The qualifications which may host this unit are:</p> <ul style="list-style-type: none"> • AHC50520 Diploma of Arboriculture • AHC60520 Advanced Diploma of Arboriculture • FWP50121 Diploma of Forest Operations <p>Note that the provisional unit code and sector have been changed to read AHCARB6XXX and reflect that it is an Arboriculture (ARB) unit.</p>
	<p>Regarding Performance Criteria 3.5 and Knowledge Evidence:</p> <ul style="list-style-type: none"> • Ecological and economic value is not specified/supported in KE. Does “tree valuation methods” include ecological and economic value? 	<p>Accepted. Knowledge Evidence has been amended to read:</p> <ul style="list-style-type: none"> • <i>tree evaluation methods, including techniques for identifying ecological and economic value of fire damaged or fire affected trees</i> <p>Reference to cultural significance is included in Knowledge Evidence as:</p> <ul style="list-style-type: none"> • <i>techniques for identifying culturally significant trees, including Aboriginal scarred trees</i>

Chainsaw Operations – Existing Units of Competency

FWPCOT2253 Fell trees manually (basic) & FWPFGM3216 Fell trees manually (intermediate)

Stakeholder Comments and Identified Issues		Consideration and Proposed Resolution
RTO (VIC)	<ul style="list-style-type: none"> • Support the retention of “six trees” in the Performance Evidence of these units 	Noted. We appreciate your feedback and support.
RTO (NSW, QLD)	<ul style="list-style-type: none"> • I certainly believe 6 trees for basic felling is definite for me as I’ve written earlier it is the basics of learning felling. 	Noted. We appreciate your feedback and support.
	<ul style="list-style-type: none"> • With intermediate felling it’s the range of trees that can be felled under this unit when you talk about forward leaning, side leaning, backward leaning and dead trees, 2 types of scarfs and 2 types of back cuts <p>I think 6 trees would need to remain if we’re to give adequate training at this level.</p>	Noted. We appreciate your feedback and support.

Stakeholder Comments and Identified Issues		Consideration and Proposed Resolution
RTO (NSW)	<ul style="list-style-type: none"> The numbers of trees specified for basic and intermediate tree felling is probably OK. Unlike advanced level trees, candidates need to show they are capable of consistent performance over time when they're demonstrating standard techniques. <p>This highlights the main conceptual difference between basic/intermediate tree felling and advanced felling. In basic and intermediate felling, the techniques are quite rigid, and candidates must demonstrate that they can apply them to a range of different trees in differing circumstances, making adjustments where required (such as pulling a tree away from its natural lean). However, in advanced felling every tree will have unique circumstances, often with dangerous potential hazards, and candidates can no longer apply standard formulas to bringing them down. There are still 'approved' techniques for different types of problem trees, but these need to be adapted to each individual tree based on its physiology and surrounding hazards, and candidates need to have extensive experience and background knowledge in order to make their own judgements as to how to handle the complexities.</p>	Noted. We appreciate your feedback and support.
Employer (NSW)	<ul style="list-style-type: none"> Support the retention of "six trees" in the Performance Evidence of these units 	Noted. We appreciate your feedback and support.
RTO (WA)	<ul style="list-style-type: none"> Support the retention of "six trees" in the Performance Evidence of these units 	Noted. We appreciate your feedback and support.
RTO (NSW)	<p>Regarding FWPCOT2253 Fell trees manually (basic):</p> <ul style="list-style-type: none"> Recommend that pre-requisite units be maintain chainsaws & trim & cut felled trees For performance evidence, recommend that students can: <ul style="list-style-type: none"> competently demonstrate basic tree falling scarf & back cut on practice stumps & then competently fall 2 basic trees minimum <p>Reasons</p>	<p>Adopted. The PE for basic and intermediate fell trees units has been adjusted to emphasise evidence for skills in cutting techniques and reduce the number of trees necessary for assessment. This is consistent with the changes made to all chainsaw operation units in response to stakeholder feedback that it is no longer sustainable and, as a result, extremely difficult to access 6 trees for each student for skills development.</p> <p>Proposed PE for <i>FWPCOT2XXX Fell trees manually (basic)</i>:</p> <p><i>There must be evidence that the individual has:</i></p> <ul style="list-style-type: none"> <i>demonstrated a standard scarf and a standard back cut appropriate for felling a tree with basic characteristics on four occasions</i>

Stakeholder Comments and Identified Issues	Consideration and Proposed Resolution
<ul style="list-style-type: none"> • Since insisting that students can competently demonstrate basic tree falling scarf & back cut on practice stumps, this ½ way step has significantly raised the standard & pass rate of our students. It gives them the feel of tree falling without real tree hazards. Students need a calm, controlled environment to learn the knowledge & skill & this gives them that. • Falling 2 trees after being competent on the practice stumps is sufficient for competency we have observed & it saves on finding more & more trees which is a problem in our area. Remember that advanced tree falling as it stands could be completed by demonstrating 2 different techniques which could be done on just 2 trees, couldn't it? Why not 2 trees for Basic after being competent on practice stumps? • We have already had to stop training in intermediate tree falling due to requirement for students to fall 6 trees. For a class of 4 this means we need 24 trees plus allowance of 2 more trees/student if they do them wrong so a total of 32 possible trees are needed. We simply runout of trees at the one location for this to happen 	<ul style="list-style-type: none"> • <i>planned and fell two trees with basic characteristics and, in performing this task, has used a standard scarf cut facing the direction of intended fall and ensured that:</i> <ul style="list-style-type: none"> • <i>the scarf cut includes a top cut angled at 45° and a depth of 1/4 of the tree diameter and a horizontal flat bottom cut that meets precisely with the lowest part of the top cut</i> • <i>the back cut is parallel to and above the scarf line by 1/10 of the tree diameter</i> • <i>a minimum 10% of the tree diameter remains uncut, leaving hinge wood</i> <i>In felling these two trees, the individual has followed workplace policy and procedures and current workplace health and safety legislation and regulations and ensured that the felling techniques used for each tree were consistent with current Australian Standards and industry codes of practice applicable to felling basic trees.</i> • <i>inspected and carried out routine maintenance on one chainsaw and its cutting attachments, on one occasion, according to manufacturer requirements.</i> <p>Proposed PE for <i>FWPCOT3XXX Fell trees manually (intermediate):</i></p> <p><i>There must be evidence that the individual has:</i></p> <ul style="list-style-type: none"> • <i>demonstrated two different cutting techniques, each on two occasions, for felling trees with intermediate characteristics. In performing these tasks, the individual must use:</i> <ul style="list-style-type: none"> • <i>scarf cutting techniques selected from Standard, Humboldt, 90 degree or Vee scarf</i> • <i>back cutting techniques, which must be for either forward leaning, side leaning or back leaning trees</i> • <i>an industry approved technique such as the use of wedges, to ensure that the tree falls in the direction of the scarf cut</i> • <i>planned and fell two trees with basic characteristics by selecting and using an appropriate scarf and back cutting technique, and in performing this task, has complied with the following criteria:</i> <ul style="list-style-type: none"> • <i>direction – the scarf must be in the direction of the desired fell</i> • <i>depth – the depth of the scarf is 1/4 to 1/3 of the diameter of the tree</i> • <i>size (width) of opening – 2/3 across the front of the tree</i>

Stakeholder Comments and Identified Issues		Consideration and Proposed Resolution
		<ul style="list-style-type: none"> • <i>top and bottom scarf cuts – the two cuts should meet without overcutting or undercutting, the scarf line is level and the scarf line is at 90 degrees to the intended direction of fall</i> • <i>back cut height – the back cut is level and above the scarf line by about 1/10 of the tree diameter</i> • <i>hinge wood thickness is about 1/10 of the tree diameter.</i> <p><i>In felling these two trees, the individual has followed workplace policy and procedures and current workplace health and safety legislation and regulations and ensured that the felling techniques were consistent with current Australian Standards and industry codes of practice applicable to felling intermediate trees.</i></p> <ul style="list-style-type: none"> • <i>inspected and carried out routine maintenance on one chainsaw and its cutting attachments, on one occasion, according to manufacturer requirements.</i>

FWPCOT2XXX Trim and cut felled trees

Stakeholder Comments and Identified Issues		Consideration and Proposed Resolution
RTO (WA)	<ul style="list-style-type: none"> • Make the three main cuts mandatory: <ul style="list-style-type: none"> • Bridging • Swinging • Boring 	<p>Adopted. Additional changes were made to Performance Evidence in response to all feedback on this unit, including:</p> <ul style="list-style-type: none"> • removed “side bind cut” from the list due to feedback indicating that this cut is very dangerous/unsafe for a beginner learner, but it was retained in the Knowledge Evidence • made the remaining six cuts (bridging, swinging, boring, wedge, ripping and step) mandatory
	<ul style="list-style-type: none"> • The following would clarify the definition of ‘felled trees’: <ul style="list-style-type: none"> • Trees cut down post logging or other tree felling operations • Trees fallen by wind or storms • Fallen limbs. 	<p>Adopted. The Application statement has been amended to clarify the definition of felled trees for this unit, as follows:</p> <p><i>For the purpose of this unit of competency, a felled tree is any tree, or part thereof, including, but not limited to a tree trunk, branch or limb that has fallen or has been felled and is laying on the ground in a bushland, plantation or forested setting.</i></p>
RTO (VIC)	<ul style="list-style-type: none"> • Agree with the proposed changes to the volume of performance evidence 	<p>Noted. We appreciate your feedback and support.</p>
	<ul style="list-style-type: none"> • Make the three main cuts mandatory and two cuts to be selected from the remaining types. 	<p>Adopted. Additional changes were made to Performance Evidence in response to all feedback on this unit, including:</p>

Stakeholder Comments and Identified Issues		Consideration and Proposed Resolution
		<ul style="list-style-type: none"> removed “side bind cut” from the list due to feedback indicating that this cut is very dangerous/unsafe for a beginner learner, but it was retained in the Knowledge Evidence made the remaining six cuts (bridging, swinging, boring, wedge, ripping and step) mandatory
	<ul style="list-style-type: none"> Remove “side bind cut” from the Performance Evidence since it is very dangerous/unsafe for a novice. 	<p>Adopted. Additional changes were made to Performance Evidence in response to all feedback on this unit, including:</p> <ul style="list-style-type: none"> removed “side bind cut” from the list due to feedback indicating that this cut is very dangerous/unsafe for a beginner learner, but it was retained in the Knowledge Evidence made the remaining six cuts (bridging, swinging, boring, wedge, ripping and step) mandatory
	<ul style="list-style-type: none"> Include knowledge of hazards associated with each cutting technique in the Knowledge Evidence. 	<p>Adopted. Added knowledge of hazards associated with each cutting technique.</p>
RTO (NSW, QLD)	<ul style="list-style-type: none"> All of the listed cutting techniques at this level should be mandatory as they are everyday cutting techniques used in all scenarios. You can’t commit only to the likes of Forestry or National Parks as there are persons in the electrical network Vegetation area for example which is a large industry where ripping is very common. 	<p>Adopted. Additional changes were made to Performance Evidence in response to all feedback on this unit, including:</p> <ul style="list-style-type: none"> removed “side bind cut” from the list due to feedback indicating that this cut is very dangerous/unsafe for a beginner learner, but it was retained in the Knowledge Evidence made the remaining six cuts (bridging, swinging, boring, wedge, ripping and step) mandatory
RTO (NSW)	<ul style="list-style-type: none"> Mandatory and optional cuts are an improvement on the original performance requirements, although I still think that candidates should be required to demonstrate them all. 	<p>Adopted. Additional changes were made to Performance Evidence in response to all feedback on this unit, including:</p> <ul style="list-style-type: none"> removed “side bind cut” from the list due to feedback indicating that this cut is very dangerous/unsafe for a beginner learner, but it was retained in the Knowledge Evidence made the remaining six cuts (bridging, swinging, boring, wedge, ripping and step) mandatory
	<ul style="list-style-type: none"> I do not think we can exclude ‘logs’ [from the meaning of felled trees], since this term is commonly used to describe tree trunks that have been cross-cut in the bush, and it would be very confusing for trainers to be told that they can’t use logs in a ‘trim and cut’ course. 	<p>Adopted. The Application statement has been amended to clarify the definition of felled trees for this unit, as follows:</p> <ul style="list-style-type: none"> <i>For the purpose of this unit of competency, a felled tree is any tree, or part thereof, including, but not limited to a tree trunk, branch or limb that has fallen or has been felled and is laying on the ground in a bushland, plantation or forested setting.</i>

Stakeholder Comments and Identified Issues		Consideration and Proposed Resolution
	<p>Personally, I don't think that 'Cut materials' is reserved for logs. We use this unit with chainsaw operators who cut manufactured products, including large PVC pipes, concrete pipes, engineered timber beams, packs of timber and sometimes even rock (in the mines). For us, the unit applies to workers who cut materials in highly controlled conditions, such as in warehouses or manufacturing plants, where they aren't surrounded by typical bushland hazards. So it could also apply to logs, but only when the logs are sitting on bearers in a log yard or treatment plant, etc. It definitely doesn't apply to logs out in the field, especially when there are pent-up compression/tension hazards present that need to be controlled by the chainsaw operator.</p>	
RTO (VIC)	<ul style="list-style-type: none"> Fully support the suggested changes highlighted in red in this unit. 	Noted. We appreciate your feedback and support.
Employer (NSW)	<ul style="list-style-type: none"> After reviewing the documents attached, I would endorse the changes to this unit of competency. 	Noted. We appreciate your feedback and support.
RTO (NSW)	<ul style="list-style-type: none"> Good that students only need to work on one tree - good change, well done. Strongly recommend that students demonstrate 6 of the cut types from the list of 7 below. The 7th cut - side bind cuts - can be optional as sometimes you don't have readily available timber with side bind for students. Side bind cuts should at least be explained & simulated by the trainer. Reasons: Students will have high probability of needing all of these cuts at some stage in the future so they need to be able to do them. The most dangerous (boring cuts) might be low frequency for future users but have high consequence if done wrong. 	<p>Noted. We appreciate your feedback and support.</p> <p>Adopted. Additional changes have been made to Performance Evidence in response to all feedback on this unit, including:</p> <ul style="list-style-type: none"> removed "side bind cut" from the list due to feedback indicating that this cut is very dangerous/unsafe for a beginner learner, but it was retained in the Knowledge Evidence made the remaining six cuts (bridging, swinging, boring, wedge, ripping and step) mandatory

Stakeholder Comments and Identified Issues		Consideration and Proposed Resolution
	<p>Remember the 7 cut types are not really 7 different cut types as some overlap:</p> <ul style="list-style-type: none"> • eg the normal step cut (a most important cut because it allows swinging timber to fall slowly & therefore under more control) is done on a swinging bit of timber so it's really 2 cuts in one • wedge cuts are commonly used with bridging cuts (ie compression on top) so again it's really 2 cuts in one 	
Employer/RTO (NSW)	<ul style="list-style-type: none"> • Feedback from both SMEs and Instructional Design indicates that the suggested changes are acceptable providing a more sustainable approach which still allows opportunity for flexibility for assessment. As a result, our organisation endorses the suggested changes. 	Noted. We appreciate your feedback and support.
Employer & RTOs (NT)	<ul style="list-style-type: none"> • Participants in support of the wording and reduction within the performance criteria of unit of competency <i>There must be evidence that the individual has:</i> <ul style="list-style-type: none"> • <i>assessed and planned trimming and cutting of one felled tree</i> • <i>trimmed branches and cut sections of the felled tree using appropriate cuts selected from</i> 	Noted. We appreciate your feedback and support.
	<ul style="list-style-type: none"> • Participants noted that the Performance Evidence should retain all seven listed 'cuts' as they are all classified as 'dangerous' and learners should be skilled to know how to perform all 	<p>Adopted. Additional changes were made to Performance Evidence in response to all feedback on this unit, including:</p> <ul style="list-style-type: none"> • removed "side bind cut" from the list due to feedback indicating that this cut is very dangerous/unsafe for a beginner learner, but it was retained in the Knowledge Evidence • made the remaining six cuts (bridging, swinging, boring, wedge, ripping and step) mandatory
	<ul style="list-style-type: none"> • Participants noting that addition of unit FWPCOT2254 Maintain Chainsaws should be listed within the pre-requisite section of the unit, noting that you are not able to operate without knowing how to maintain a chainsaw 	<p>Thank you for this comment. Organizations may consider offering FWPCOT2254 along with this unit of competency as a skill set to new learners, but it should not be used as prerequisite unit unless the learner must be deemed competent in this unit before being assessed for the unit in question. This is generally the case when the unit contains skills or knowledge that cannot be obtained without that prior competence.</p>

Stakeholder Comments and Identified Issues		Consideration and Proposed Resolution
		<i>FWPCOT2XXX Trim and cut felled trees</i> contains an element and knowledge components for checking, sharpening and changing a saw chain post trimming.

FWPCOT3XXX Fell trees manually (advanced)

Stakeholder Comments and Identified Issues		Consideration and Proposed Resolution
RTO (VIC)	<ul style="list-style-type: none"> Endorse proposed changes to the Performance Evidence 	Noted. We appreciate your feedback and support.
Employer (NSW)	<ul style="list-style-type: none"> After reviewing the documents attached, I would endorse the changes to this unit of competency. 	Noted. We appreciate your feedback and support.
RTO (NSW, QLD)	<ul style="list-style-type: none"> It is critical that candidates understand and have experience in chainsaw use ideally up to at least Basic tree felling, this is where basic scarfing, back cutting, hinge wood and placement of back cuts need to be and is learnt at this level. Advance felling is applied so differently to other levels to be able to look at techniques to be used on particular types of trees with different structure issues, this could be taken on a number of trees for a handful of different techniques. Adding a statement on having experience is certainly a step in the right direction. 	<p>Thank you for this comment. Prerequisites were extensively discussed during the prior review, with stakeholders expressing concerns that, if introduced, they would create a training barrier for experienced chainsaw operators who may not necessarily have or be able to access a previous statement of attainment for basic and/or intermediate levels. Several stakeholders also expressed concerns about the safety of beginner learners if they enrol in this unit, or their lack of essential skills to complete this unit, suggesting that the situation may be handled by adding prerequisite units. Similar comments are being received presently.</p> <p>Further details have been included in the Application for learners, employers and training providers on prior experience required to begin this unit as follows:</p> <p><i>Individuals who seek to undertake this unit should have prior experience or skills in operating a chainsaw for felling trees.</i></p>
RTO (WA)	<ul style="list-style-type: none"> Agree that prior experience is essential for the learner's safety when undertaking this unit and supports the addition of a prior experience statement in the Application to advise learners, employers and training providers. 	<p>Thank you for your support. Further details have been included in the Application for learners, employers and training providers on prior experience required to begin this unit as follows:</p> <p><i>Individuals who seek to undertake this unit should have prior experience or skills in operating a chainsaw for felling trees.</i></p>
RTO (NSW)	<ul style="list-style-type: none"> Recommend that pre-requisite units be fall trees manually basic & intermediate 	<p>Thank you for your comments. Prerequisites were extensively discussed during the prior review, with stakeholders expressing concerns that, if introduced, they would create a training barrier for experienced chainsaw operators who may not necessarily have or be able to access a previous statement of attainment for basic and/or intermediate levels. Several stakeholders also expressed concerns about the safety of beginner</p>

Stakeholder Comments and Identified Issues

Consideration and Proposed Resolution

learners if they enrol in this unit, or their lack of essential skills to complete this unit, suggesting that the situation may be handled by adding prerequisite units. Similar comments are being received presently.

Further details have been included in the Application for learners, employers and training providers on prior experience required to begin this unit as follows:

Individuals who seek to undertake this unit should have prior experience or skills in operating a chainsaw for felling trees.