CPPBAL5XX5 Advise on landscaping design measures for bushfire resilience

UNIT MODIFICATION HISTORY	
Release 1	This version first released with CPP Property Services Training Package Release 15.0 New Unit of competency

Unit Code	**CPPBAL5XX5**
Unit Title	**Advise on landscaping design measures for bushfire resilience**
Application	This unit specifies the skills and knowledge required to conduct a site visit, undertake observations and assess a landscaped design for a site for bushfire resilience. The unit applies to individuals who are paraprofessional workers and have technical and theoretical knowledge of bushfire impact on community development. They demonstrate autonomy, judgement and responsibility in a range of contexts within broad but established parameters, and communication and analytical skills to determine and transmit solutions to complex problems to others. No licensing, legislative or certification requirements apply to this unit at the time of publication.
Prerequisite Unit	Nil
Competency Field	039905 Fire Technology
Unit Sector	TBC

ELEMENTS		**PERFORMANCE CRITERIA**	
Elements describe the essential outcomes.		Performance criteria describe the performance needed to demonstrate achievement of the element.	
1	Collect site information and plan site visit	1.1	Access and interpret maps and plans of site to be assessed
		1.2	Identify regulations, standards and codes of practice relevant to landscape designs in bushfire prone areas
		1.2	Contact stakeholders and seek approval for site visit
		1.3	Identify health and safety hazards, assess risk and implement controls for site visit according to workplace procedures
		1.4	Plan transport and access to site
2	Conduct site assessment of landscape components	2.1	Access site and assess and record potential fire risk from adjacent properties
		2.2	Assess and record actual and potential bushfire fuel loads near buildings
		2.3	Assess and record landscape layout for zones of defendable space
		2.4	Identify, assess and record plant species in landscape

		2.5	Assess and record structures, materials and condition of landscape features for potential fire risk
3	Consider options for landscape improvement	3.1	Collate assessments and records and determine bushfire risk of landscape elements according to industry standards
		3.2	Investigate alternative landscape design elements to improve bushfire mitigation outcomes
		3.3	Evaluate options to improve landscape design to help mitigate fire risk
		3.4	Compile options and document recommended changes to landscape design to improve bushfire resilience
4	Provide guidance on landscaping design measures to improve resilience	4.1	Present report and recommendations to stakeholders for feedback
		4.2	Review and respond to feedback and modify recommendations and report
		4.3	Distribute final report and recommendations to stakeholders
		4.4	Maintain records and file reports and recommendations according to workplace procedures

FOUNDATION SKILLS This section describes the language, literacy, numeracy and employment skills essential to performance in this unit but not explicit in the performance criteria:	
Skill	**Description**
Reading skills to:	• Interpret and critically analyse landscape designs, plans and specifications for potential bushfire risk
Writing skills to:	• Develop and document recommendations expressing ideas, exploring complex fire mitigation issues which is constructed logically, succinctly and accurately
Oral communication skills to:	• Establishes and maintains effective communication with stakeholders using collaborative and inclusive techniques to convey and clarify recommendations

UNIT MAPPING INFORMATION	No equivalent unit
LINKS	The Companion Volume Implementation Guide for the CPP Property Services Training Package is available at: https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=6f3f9672-30e8-4835-b348-205dfcf13d9b

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TITLE	Assessment Requirements for CPPBAL5XX5 Advise on landscaping design measures for bushfire resilience

PERFORMANCE EVIDENCE

To demonstrate competency, a candidate must meet the elements and performance criteria of this unit by

assessing a landscape design or a landscaped site for key elements for bushfire resilience including:

- identified and interpreted landscape plans, specifications and legislative requirements
- communicated effectively with stakeholders
- conducted site assessment and determined areas in need of improvement for landscape
- compiled site assessment data, determined options for landscape improvements
- prepared draft recommendations and communicated to stakeholders
- responded to feedback, completed reports and recommendations and presented to stakeholders
- finalised record keeping and filing of report and recommendations according to workplace procedures.

KNOWLEDGE EVIDENCE

To be competent in this unit, a candidate must demonstrate knowledge of:

- legislation, regulations, standards and codes of practice applicable to bushfire safety
- fire behaviour in residential and commercial properties and surrounding landscape, including:
  - fire movement and combustion in bushfire prone areas
  - fuel pathways
  - protection from radiant heat
  - principles of ladder fuel
  - dropping and accumulation of leaf litter and potential embers
  - zoning the landscape for defendable space
  - planting fire potential hazard near buildings
- landscape features and potential fire hazard, including:
  - pergolas and vines
  - timber and other flammable features
  - ember traps
  - landscape plants and leaf litter accumulation on roof and in building space
  - garden bed mulches
  - plants in containers
- landscape plants to help mitigate fire, including:
  - basic biological features for flammability and fire resistance of plants
  - plants suitable as wind breaks and to reduce wind speed
  - plants suitable to absorb or reduce radiant heat
  - plants to filter embers
  - plants prone to increase fuel loading
  - bark of trees and fire risk
  - xerophytic landscapes and plant moisture content
  - lawns and green space
  - size and proximity of vegetation and their risk to buildings
- landscape design principles for fire safety, including:
  - landscape plans and their interpretation

- landscape design for safe access and exit from buildings
  - minimising fuel continuity
  - water in the landscape to supplement fire protection
  - driveways, path and hard surfaces as fire breaks
- landscape seasonal maintenance to reduce fire risk, including:
  - slashing and mowing heights
  - soil and mulch moisture content and impact on flammability of plants
  - control of weeds
- communication skills when dealing with clients and stakeholders
- documenting recommendations and report writing.

ASSESSMENT CONDITIONS

Assessors must satisfy the requirements for assessors contained in the Standards for Registered Training Organisations.

Competency is to be assessed in the workplace or a simulated environment that accurately reflects performance in a real workplace setting where these skills and knowledge would be performed.

Candidates must have access to:

- landscape plans and specifications
- property for assessing landscape
- client(s) or stakeholders
- resources for estimating fuel loadings and fire risk on properties
- legislation, regulations, standards and codes of practice relevant to landscape design and bushfire fire risk
- references and resources for plants suitable for landscapes in bushfire prone areas.

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