



Australian Government

FWPFIR4001 Conduct tree hazard assessment post-fire

Release: 1

FWPFIR4001 Conduct tree hazard assessment post-fire

Modification History

Release	Comments
Release 1	This version released with FWP Forest and Wood Products Training Package Version 8.0.

Application

This unit of competency describes the skills and knowledge required to conduct hazard assessment of fire affected or fire damaged trees during the early stages of bushfire recovery and make recommendations on risk treatment.

The unit applies to individuals authorised by emergency management agencies to assess tree hazard during the early stages of bushfire recovery operations.

All work must be carried out to comply with workplace procedures, according to state/territory health and safety regulations, legislation, standards and industry codes of practice that apply to the workplace.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

Pre-requisite Unit

Nil

Unit Sector

Fire Control (FIR)

Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare for work in bushfire recovery operations	1.1 Maintain up-to-date information on topography, hazards and weather conditions in bushfire recovery area 1.2 Maintain situational awareness in bushfire recovery area 1.3 Follow health and safety environmental protection practices and/or procedures, including use of personal protective equipment and hazard

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	and risk control measures, relevant to bushfire recovery operations 1.4 Confirm chain of command and communication protocols that apply in bushfire recovery operations
2. Identify, mark and isolate tree hazard	2.1 Conduct hazard assessment of route to and areas around tree to determine it is safe to approach 2.2 Determine location and position of tree in relation to site topography and other hazards at site 2.3 Establish risk to self and others posed by tree hazard and other factors in immediate vicinity of the tree 2.4 Mark tree, if safe to do so, using spray paint according to industry guidelines and agency approved symbols 2.5 Isolate tree with barrier tape according to industry guidelines and agency approved procedures
3. Assess tree hazard	3.1 Assess visually extent of fire damage to crown, trunk and root from the appropriate safe distance 3.2 Identify structural and physiological defects in tree 3.3 Assess external factors that may cause tree or its limbs and branches to fall 3.4 Determine risks posed by tree according to workplace procedures 3.5 Identify tree hazard class according to industry guidelines and agency approved procedures 3.6 Identify potential environmental, cultural and economic values of tree and, where required, consult with appropriately qualified person on risk treatment options 3.7 Determine appropriate risk treatment to mitigate tree hazard according to industry guidelines and agency approved procedures 3.8 Record and report outcomes of tree assessment to appropriate personnel

Foundation Skills

This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.

Skill	Description
Reading	Interpret routine text and pictorial workplace documentation relevant to identification and treatment of fire damaged or fire affected hazardous trees
Oral communication	Use appropriate vocabulary including technical language directly relevant to role

Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FWPFIR4001 Conduct tree hazard assessment post-fire	Not applicable	The unit has been created to address a skill or task required by industry that is not covered by an existing unit	Newly created

Links

Companion Volumes, including Implementation Guides, are available at VETNet: -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=0d96fe23-5747-4c01-9d6f-3509ff8d3d47>

Assessment Requirements for FWPFIR4001 Conduct tree hazard assessment post-fire

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Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that the individual has conducted a hazard assessment of five fire damaged or fire affected trees, which include two different species.

In performing each of these tasks, the individual has:

- complied with health and safety requirements, including use of personal protective equipment
- conducted a dynamic risk assessment of route to and areas around tree
- identified risks to self and others posed by tree according to workplace procedures
- identified ecological, cultural and economic value of tree
- assessed and determined treatment options for tree
- reported on assessment and treatment options for tree.

Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- health and safety work procedures relevant to bushfire recovery operations
- workplace hazards and associated risks and controls in bushfire recovery operations, including those associated with fire affected and fire damaged trees
- tree species and effects of fire on different trees species
- hazards associated with fire affected and fire damaged trees
- factors influencing assessment of tree hazard risk and the values in retaining the tree, including:
 - structural characteristics of trees
 - likely timeframe in which the tree, limb or branch might be expected to fall
 - tree exposure to causal factors and external influences of tree hazard
 - quantity of trees to be assessed

- potential of tree to interact with other hazards or assets (e.g., power lines, buildings)
- operational context
- possible risk control measures that may be applied in context
- cultural, social or economic values associated with a tree or its immediate surroundings
- ecological values at the site
- external factors that increase potential tree hazard, including:
 - wind exposure
 - drought
 - stress and insect infestation
 - excessive drainage problems from land management operations
 - exposure to vibration from heavy plant or machinery
- other hazards at the site that increase potential tree hazard, including:
 - gas supplies
 - water supplies
 - powerlines (above and below ground)
 - adjacent buildings
 - features of adjacent trees
 - terrain features
- characteristics of hazardous trees, including:
 - dead and/or decaying tree and/or major branches
 - evidence of previous damage, including burn or mechanical processes
 - suspected loose or broken branches
 - evidence of longitudinal or torsion fractures
 - evidence of roots lifting or disturbed root system
 - significant lean with indicators of failure
 - cavities and hollows in the main trunk and root buttress area
- industry guidelines and agency approved policies and procedures for tree hazard management in bushfire recovery regarding:
 - tree hazard isolation
 - tree hazard marking and mapping symbols
 - tree hazard classes – clear and present danger tree (CPD), potential clear and present danger trees (potential CPD)
 - tree hazard treatment – removal of tree or removal of branch/limb, exclusion, communication of ongoing risk to relevant qualified personnel
- characteristics of culturally significant trees, including Aboriginal sacred trees, and workplace procedures for managing significant trees, including who to contact if a culturally significant tree is identified
- techniques for recording position of trees using Global Navigation Satellite System (GNSS)
- reporting procedures associated with tree hazards.

Assessment Conditions

Assessment of the skills in this unit of competency must take place under the following conditions:

- physical conditions:
 - skills must be demonstrated in a work environment or an environment that accurately represents workplace conditions
- resources, equipment and materials:
 - fire damaged or fire affected trees
 - communications systems relevant to work activity
 - equipment and materials relevant to work activity
 - personal protective equipment relevant to work activity
 - GNSS
- specifications:
 - workplace health and safety and environmental protection policies and/or procedures relevant to work activity
 - workplace documentation for recording information relevant to work activity.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

Links

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<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=0d96fe23-5747-4c01-9d6f-3509ff8d3d47>