



Australian Government

AHCFIR503 Plan and evaluate burning for fuel, ecological and cultural resource management

Release: 1

AHC FIR503 Plan and evaluate burning for fuel, ecological and cultural resource management

Modification History

Release	Comments
Release 1	This version released with AHC Agriculture, Horticulture and Conservation and Land Management Training Package Version 6.0.

Application

This unit of competency describes the skills and knowledge required to plan burning in areas associated with fuel management. It requires the planner to identify the advantages and risks from burning and assess the implications on ecological and cultural assets. It includes developing monitoring programs, conducting post-burn assessments for a burn site, evaluation and reporting on burn outcomes and the implementation of monitoring programs to identify response of flora and fauna at a burn site.

The unit applies to individuals whose job roles include wildfire management for ecological and cultural assets at risk in target areas. Work is undertaken without supervision. They have accountability for the work of others and analyse, design and communicate solutions to a range of complex problems.

Legislation and regulations apply to planned burns in many jurisdictions. Users are advised to check with the relevant regulatory authority.

Pre-requisite Unit

Nil

Unit Sector

Fire (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. Assess a designated site/area for planned	1.1 Locate, assess and record accumulated fuel, cultural heritage and environmental assets

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
burning	1.2 Locate, assess and record reference areas, experimental plots, populations of flora and fauna that may be affected by fire 1.3 Assess and record potential impacts on natural and cultural heritage assets from planned burn preparation and burning activities 1.4 Assess potential risks and hazards 1.5 Identify the history of previous burns on site 1.6 Identify legislation, regulations and codes of practice relevant to planned burn preparation and activities 1.7 Assess the suitability of target site for fuel reduction burns 1.8 Identify alternative strategies where fuel reduction burns are not favourable 1.9 Determine resources and equipment required to implement the planned burn
2. Plan burn	2.1 Conduct site assessments to confirm selection of target sites for planned burning 2.2 Establish objectives for fuel reduction, ecological and cultural heritage protection 2.3 Select strategies and tactics suitable for the area and consistent with the planned burn objectives 2.4 Assess wildfire hazards and risks of selected strategies and tactics 2.5 Conduct consultation and ongoing liaison with stakeholders 2.6 Confirm planning addresses workplace health and safety, protection of life, property, assets and environment and complies with legislative requirements 2.7 Develop objectives and procedures for monitoring ecological response to burn 2.8 Confirm required resources and the optimum timing to reduce risk are included in burn planning process
3. Develop monitoring and evaluation program	3.1 Collate and record pre-burn site assessment of fire history and frequency for post-burn benchmarking 3.2 Assess, evaluate and record habitat conditions pre-burn for monitoring program 3.3 Assess, evaluate and record fuel hazard data and pre-burn conditions for monitoring program

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	3.4 Establish and record baseline site conditions for ongoing monitoring 3.5 Document a program for post-burn site monitoring and evaluation
4. Conduct post-burn monitoring and evaluation	4.1 Conduct post-burn monitoring and evaluation of burn site 4.2 Assess outcomes of planned burn against established objectives for fuel management and protection of ecological and cultural heritage assets 4.3 Record post-burn monitoring and evaluation activities 4.4 Document and report monitoring and evaluation findings 4.5 Develop recommendations based on information from monitoring and evaluation activities according to legislation, regulations, codes of practice and workplace obligations

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	Build and maintain an understanding of complex texts, including legislation, regulations and workplace policies and procedures for consideration during plan development
Writing	- Prepare plans expressing ideas, exploring complex issues and constructing them in a logical, succinct and accurate way for fuel reduction burns - Develop detailed reports on burn outcomes and their effectiveness or otherwise in meeting planned burn objectives
Oral communication	Establish and maintain complex and effective communication when liaising with a broad range of stakeholders and during consultations

Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
AHCFIR503 Plan and evaluate burning for fuel, ecological and cultural resource management	AHCFIR502 Plan prescribed burning for fuel, ecological and cultural resource management	Title change to reflect current industry practice Changes to Application and Performance Criteria to emphasise ‘planned’ burning Added new Element 3 Edited Performance Criteria for clarity Added Foundation Skills Edited Performance Evidence and Knowledge Evidence Added to Assessment Conditions	Not equivalent

Links

Companion Volumes, including Implementation Guides, are available at VETNet: - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCFIR503 Plan and evaluate burning for fuel, ecological and cultural resource management

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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, on at least one occasion:

- planned burning activities of a site according to organisational procedures and legislative requirements
- developed and implemented a program to facilitate post-burn monitoring and evaluation activities for the site
- conducted post-burn assessment of a given site to evaluate and report on burn outcomes, including recommendations for implementing monitoring programs to identify recovery of flora and fauna.

There must also be evidence the individual has:

- identified the history of previous burns on the site, including:
 - frequency
 - season
 - intensity
 - extent
- assessed the overall fuel hazard for a site and determined the risk, likelihood and consequences
- identified likely impact on flora and fauna
- identified ecological and cultural assets that could be affected by preparation and burning activities
- developed planned burn objectives, strategies and tactics, including:
 - maximising asset protection
 - minimising environmental impact
 - minimising impact on cultural and heritage assets
- consulted and liaised with key stakeholders in burn planning process
- researched, considered and applied outcomes of historical fires in target area
- applied workplace health and safety legislative requirements to planned burning

- reported burn outcomes according to workplace requirements.

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:

- wildfire hazard and risk management strategies
- basic wildfire behaviour:
 - fuel types and fuel hazard levels
 - sources of ignition
 - effects of climate change and impact of weather
 - fire movement and reaction to aspect and terrain
- planned burning strategies:
 - fuel reduction
 - ecological
 - cultural
- legislation relevant to wildfire hazard reduction, cultural heritage and protection of flora and fauna
- effects of fire intensity and behaviour on ecology, including:
 - vegetation and vegetation types
 - frequency and vegetation response
 - fauna and habitat
 - biodiversity
 - fuel accumulation
 - impact on soils and erosion
 - impact on streams and waterways
 - impact on natural vegetation and pest plants
- effects of fire on areas and places of cultural significance:
 - Indigenous culture
 - heritage sites
- resource requirements used to conduct planned burning activities
- risks in burning for fuel management
- pre-fire and post-fire monitoring, evaluation and recording techniques.

Assessment Conditions

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

- physical conditions:
 - skills must be demonstrated on a site requiring planned burning as part of a fire management plan

- access to a post-burn site to demonstrate monitoring and evaluation activities
- resources, equipment and materials:
 - computer and web-based resources
 - planning guides
 - digital tools and instruments
 - fire intensity and soil temperature information
- specifications:
 - wildfire hazard rating systems
 - vegetation classification systems
 - maps, aerial images and planning overlays
 - workplace policies and procedures for wildfire management
 - legislation, regulations and codes of practice.

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

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