



**Australian Government**

# **PUAFIR508 Develop and analyse the behaviour and suppression options for a wildfire**

**Release: 1**

# PUAFIR508 Develop and analyse the behaviour and suppression options for a wildfire

## Modification History

**Release 1.** This is the first release of this unit of competency in the PUA Public Safety Training Package.

## Application

This unit of competency involves the skills and knowledge required to provide an analysis of the behaviour and spread of a wildfire and to prepare suppression options that are appropriate for expected fire behaviour.

The unit applies to personnel required to provide fire behaviour and spread predictions for consideration by the incident management team and state control centre.

The fire sector is those sections of government departments, statutory authorities or organisations that have responsibility under jurisdictional arrangements for the delivery of firefighting and fire management services.

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

## Pre-requisite Unit

Not applicable.

## Competency Field

Fire

## Unit Sector

Fire

## Elements and Performance Criteria

### ELEMENTS

Elements describe the essential outcomes.

**1 Analyse factors that can impact a wildfire and**

### PERFORMANCE CRITERIA

Performance criteria describe the performance needed to demonstrate achievement of the element.

**1.1** Information on current and future fire behaviour and spread is collected from a range of sources and is

|                                                                 |            |                                                                                                                            |
|-----------------------------------------------------------------|------------|----------------------------------------------------------------------------------------------------------------------------|
| <b>develop predictions</b>                                      |            | recorded, in accordance with organisational procedures                                                                     |
|                                                                 | <b>1.2</b> | Analysis is undertaken of fuels, fuel assessment, weather analysis and the effects of topography on fire behaviour         |
|                                                                 | <b>1.3</b> | Relevant site information is sought from data bases or experts, in accordance with organisational procedures               |
|                                                                 | <b>1.4</b> | Appropriate fire prediction tools and references are utilised in the analysis of fire behaviour and spread                 |
|                                                                 | <b>1.5</b> | Fire behaviour and spread predictions are developed, in accordance with organisational procedures                          |
|                                                                 | <b>1.6</b> | Predicted fire behaviour is validated against actual observations and intelligence as it becomes available                 |
| <b>2 Develop and maintain maps and data</b>                     | <b>2.1</b> | Required map information and data regarding predicted fire spread and behaviour is prepared                                |
|                                                                 | <b>2.2</b> | Quality information is provided within required timeframes for fire control planning                                       |
|                                                                 | <b>2.3</b> | Key assumptions and limitations affecting the predictions are identified and reported                                      |
|                                                                 | <b>2.4</b> | Fire behaviour and spread predictions are updated as new weather and fire information becomes available                    |
| <b>3 Analyse and communicate risks</b>                          | <b>3.1</b> | Location and timing of potential future impact of the fire is predicted                                                    |
|                                                                 | <b>3.2</b> | Key risks of fire to human, economic and environmental assets are considered, in accordance with organisational procedures |
|                                                                 | <b>3.3</b> | Fire and weather are monitored to assess if and or when fire behaviour is likely to change                                 |
|                                                                 | <b>3.4</b> | Identified risks and impacts are communicated to relevant personnel                                                        |
| <b>4 Contribute to the analysis of fire suppression options</b> | <b>4.1</b> | Participate in preparation of options analysis for consideration by the Incident Management Team (IMT)                     |
|                                                                 | <b>4.2</b> | Relevant time frames and fire behaviour thresholds for fire suppression strategies and tactics are considered              |
|                                                                 | <b>4.3</b> | Predicted changes to or variations in fire behaviour                                                                       |

conditions due to fuel, weather, topography and fire size are reviewed and considered

- 4.4** Advice and analysis are provided to the IMT, in accordance with organisational procedures, to assist in developing strategies including fall back strategies

## Foundation Skills

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

## Range of Conditions

Range is restricted to essential operating conditions and any other variables essential to the work environment.

Non-essential conditions may be found in the Companion Volume Implementation Guide.

firefighting strategies must include

- defensive strategies - community and asset protection
- offensive strategies - direct, indirect and parallel attack

firefighting tactics must include

- aerial suppression
- back burning and burning out
- control line construction - hand and machine
- direct application of firefighting media

## Unit Mapping Information

This unit replaces and is equivalent to PUAFIR512 Develop and analyse the behaviour and suppression options for a Level 2 wildfire.

## Links

PUA Training Package Companion Volume Implementation Guide is found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=3eca5672-6d5a-410b-8942-810d0ba05bbf>