



**Australian Government**

# **PUAFIR412 Conduct simple prescribed burns**

**Release 2**

## PUAFIR412 Conduct simple prescribed burns

### Modification History

Release	TP Version	Comments
2	PUA12 V2.1	Editorial changes.
1	PUA12 V2	New unit.

### Unit Descriptor

This unit covers the competency required to prepare, conduct and evaluate simple prescribed burns in accordance with approved burn plans.

A prescribed burn is the controlled application of fire under specified environmental conditions to a predetermined area and at the time, intensity and rate of spread required to attain planned resource management objectives.

A simple prescribed burn is characterised by low risk, low intensity, small area, low potential impact on assets, completion in one shift and minimal variation of fuel and terrain.

A prescribed burn plan is an approved plan for the conduct of prescribed burning, includes a map identifying the area to be burned and incorporates the specifications and conditions under which the operation is to be conducted.

Compliance with legislative requirements will be required.

### Application of the Unit

This unit applies to personnel responsible for preparing, conducting, and evaluating a simple prescribed burn on public and private land.

### Licensing/Regulatory Information

Not applicable.

### Pre-Requisites

PUAFIR303B Suppress wildfire

### Employability Skills Information

This unit contains employability skills.

## Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a Unit of Competency.

Performance Criteria describe the required performance needed to demonstrate achievement of the element. Where ***bold italicised*** text is used, further information is detailed in the Range Statement. Assessment of performance is to be consistent with the Evidence Guide.

## Elements and Performance Criteria

### ELEMENT

### PERFORMANCE CRITERIA

#### 1. Prepare to burn

- 1.1 ***Burn plan*** operations are identified for the ***type of burn*** required in accordance with organisational procedures and legislative requirements.
- 1.2 ***Contingency plan*** is developed based on ***local conditions at the time of burn*** and communicated to all personnel.
- 1.3 Permits are obtained in accordance with organisational procedures and legislative requirements.
- 1.4 Burn notifications and plans are issued to ***person/s or organisations*** in accordance with organisational procedures and legislative requirements.
- 1.5 ***Resource*** requirements are identified with reference to burn plan.
- 1.6 Control lines are specified and prepared in accordance with organisational procedures.
- 1.7 Required preparatory hazard mitigation and ***asset*** protection works identified in burn plan are completed.
- 1.8 ***Weather conditions*** are monitored.

#### 2. Conduct burn

- 2.1 Day of burn notifications are issued.
- 2.2 Pre burn checks are conducted.
- 2.3 Resources are gathered and personnel briefed and deployed in accordance with burn plan.
- 2.4 ***Lighting techniques and patterns*** are implemented in accordance with plan or organisational procedures.
- 2.5 Burning is ***monitored*** to ensure safety and operational changes are made as required.
- 2.6 Contingencies are implemented in accordance with

prescribed burn plan as required.

- 2.7 Burn records are kept in accordance with organisational procedures.
- 2.8 Burn operations are ***concluded and burn security*** is implemented in accordance with organisational requirements.
- 2.9 Crews are debriefed and resources released from the burn.
- 2.10 Incidents are reported and investigated in accordance with organisational procedures.

### **3. Conduct post burn activities**

- 3.1 ***Outcomes of the burn*** are assessed and reported.
- 3.2 Variations from the burn plan are reported in accordance with organisational procedures.
- 3.3 ***Restoration and rehabilitation works*** are identified and/or carried out in accordance with organisational requirements.
- 3.4 Prescribed burn activities are recorded in accordance with the organisational procedures.

## Required Skills and Knowledge

This describes the essential skills and knowledge and their level, required for this unit.

### Required Skills

- apply fuel sampling methods
- conduct briefings and debriefings
- establish control lines for prescribed burns
- interpret a simple prescribed burn plan
- interpret existing and forecast weather conditions
- interpret fire behaviour conditions
- monitor patrol activities
- monitor the burn
- plan for contingencies
- use fire prediction tools

### Required Knowledge

- fire prediction tools
- fuel sampling methods
- ground ignition patterns and techniques
- legislative and organisational authorisations required for conducting a burn
- legislative and organisational policy and procedures for conducting a prescribed burn
- procedures for monitoring prescribed burns and securing burn
- resource requirements
- safe work practices
- seasonal restrictions on prescribed burns
- types of prescribed burns

## Evidence Guide

The evidence guide provides advice on assessment and must be read in conjunction with the Performance Criteria, Required Skills and Knowledge, the Range Statement and the Assessment Guidelines for this Training Package.

### Critical aspects for assessment and evidence required to demonstrate competency in this unit

Assessment must confirm the ability to:

- implement a simple burn plan for a designated area
- conduct an effective operational briefing and debriefing
- conduct a safe and effective burn, utilising the appropriate resources and recording actions taken
- conclude activities once the burn is completed

### Consistency in performance

Competency should be demonstrated in a range of actual and/or field-based workplace environments.

### Context of and specific resources for assessment

#### Context of assessment

Evidence collected from undertaking a simple prescribed burn is required.

#### Specific resources for assessment

Access is required to:

- simple prescribed burn plans
- fire management plans
- lighting equipment
- suppression equipment
- lighting and suppression crews

### Method of assessment

In a public safety environment assessment is usually conducted via direct observation in a training environment or in the workplace via subject matter supervision and/or mentoring, which is typically recorded in a competency workbook.

Assessment is completed using appropriately qualified assessors who select the most appropriate method of assessment.

Assessment may occur in an operational environment or in an agency-approved simulated work environment. Forms of assessment that are typically used include:

- direct observation
- interviewing the candidate
- journals and workplace documentation
- third party reports from supervisors

- written or oral questions

## Range Statement

The Range Statement relates to the Unit of Competency as a whole. It allows for different work environments and situations that may affect performance. ***Bold italicised*** wording in the Performance Criteria is detailed below.

<b><i>Burn plan</i></b> includes:	<ul style="list-style-type: none"> <li>• approval of the plan for the conduct of prescribed burning</li> <li>• map identifying the area to be burned</li> <li>• specifications and conditions under which the operation is to be conducted</li> </ul>
<b><i>Type of burn</i></b> must include:	<ul style="list-style-type: none"> <li>• Simple prescribed burn, characterised by low risk, low intensity, small area, low potential impact on assets, completed in one shift and involves minimal variation of fuel and terrain</li> </ul>
<b><i>Contingency planning</i></b> may include:	<ul style="list-style-type: none"> <li>• dealing with escapes</li> <li>• resource breakdowns</li> <li>• resource requirements</li> <li>• safety considerations (e.g. escape routes and safety zones)</li> <li>• special resources/secondary control lines</li> <li>• wind changes</li> </ul>
<b><i>Local conditions at the time of burn</i></b> may include:	<ul style="list-style-type: none"> <li>• actual or anticipated changes in conditions</li> <li>• weather conditions (temperature, relative humidity, wind, atmospheric stability, drought index, weather forecasts, fire danger index)</li> </ul>
<b><i>Person/s or organisation/s</i></b> may include :	<ul style="list-style-type: none"> <li>• people or organisations who</li> <li>• have an interest in adjacent land to which a burn could spread</li> <li>• have an interest in managing the consequences of a burn</li> <li>• have an interest in specific assets</li> <li>• have an interest in the area to be burned</li> <li>• may be concerned by evidence of a burn</li> </ul>
<b><i>Burn notifications</i></b> may include:	<ul style="list-style-type: none"> <li>• verbal notification</li> <li>• written notification</li> </ul>
<b><i>Resources</i></b> may include:	<ul style="list-style-type: none"> <li>• contingency resources</li> <li>• crews for control and suppression</li> <li>• crews for ground ignition</li> <li>• equipment and supplies</li> <li>• logistical support</li> <li>• other vehicles</li> <li>• tankers</li> </ul>



<b>Assets</b> may include:	<ul style="list-style-type: none"> <li>• area of rare or sensitive flora and fauna</li> <li>• buildings and other property</li> <li>• camps or recreational areas</li> <li>• crops</li> <li>• cultural values</li> <li>• historic relics</li> <li>• machinery</li> <li>• plantations</li> <li>• research plots, reference areas</li> <li>• stock</li> <li>• utilities (power and telephone lines, water supply structures, communications towers)</li> </ul>
<b>Weather conditions</b> must include:	<ul style="list-style-type: none"> <li>• relative humidity</li> <li>• temperature</li> <li>• wind</li> </ul>
<b>Lighting techniques and patterns</b> may include:	<ul style="list-style-type: none"> <li>• contour lighting</li> <li>• echelon</li> <li>• grid</li> <li>• line</li> <li>• multi-line</li> <li>• spot</li> </ul>
<b>Monitoring burn</b> may include:	<ul style="list-style-type: none"> <li>• fire shape and spread</li> <li>• flame height</li> <li>• fuel moisture content</li> <li>• predictions</li> <li>• rate of spread</li> <li>• recording</li> <li>• safety considerations</li> <li>• smoke development</li> <li>• weather observation</li> <li>• wind speed and direction</li> </ul>
<b>Concluding operations and burn security</b> may include:	<ul style="list-style-type: none"> <li>• black out</li> <li>• mitigating hazards for public safety e.g. checking trees for falling limbs</li> <li>• mop-up</li> <li>• patrolling burn area</li> <li>• reopening roads</li> </ul>
<b>Outcomes of the burn</b> may include:	<ul style="list-style-type: none"> <li>• achievement of burn objectives</li> <li>• escapes</li> <li>• external impacts</li> <li>• levels of scorch</li> </ul>

	<ul style="list-style-type: none"><li>• percentage of area burnt</li></ul>
<i>Restoration and rehabilitation works</i> may include:	<ul style="list-style-type: none"><li>• restoring areas disturbed by machinery</li><li>• revegetating control lines</li><li>• repairing fences</li><li>• revegetation of damaged areas</li><li>• restoring vehicle track damage</li></ul>

## Unit Sector(s)

Not applicable.