

Investigate origin and cause of vegetation fires

Level 5

Credits 6

Purpose People credited with this unit standard are able to: demonstrate knowledge of fire determination procedures and responsibilities; collect and preserve evidence for the determination of the origin and cause of a vegetation fire; determine area of origin and probable cause of a vegetation fire; and report on a vegetation fire investigation.

Subfield Fire and Rescue Services

Domain Fire and Rescue Services - Vegetation

Status Registered

Status date 20 November 2009

Date version published 20 November 2009

Planned review date 31 December 2014

Entry information Prerequisite: Unit 4648, *Demonstrate knowledge of vegetation fire behaviour*, and Unit 20392, *Protect and preserve a fire scene*; or demonstrate equivalent knowledge and skills.

Accreditation Evaluation of documentation and visit by NZQA and industry.

Standard setting body (SSB) Fire and Rescue Services Industry Training Organisation

Accreditation and Moderation Action Plan (AMAP) reference 0039

This AMAP can be accessed at <http://www.nzqa.govt.nz/framework/search/index.do>.

Special notes

- 1 Legislation relevant to this unit standard includes the Fire Service Act 1975, Forest and Rural Fires Act 1977, Privacy Act 1993, and Forest and Rural Fires Regulations 2005.
- 2 Compliance with the fire and rescue service provider's Health and Safety policy and procedures is mandatory.
- 3 Assessment against this unit standard must take place under real conditions.

- 4 The primary reference for this unit standard is: *Wildfire Origin & Cause Determination Handbook*, National Rural Fire Authority (NRFA) (Wellington: NRFA, 2007). This reference is available from the NRFA, PO Box 2133, Wellington 6140.
- 5 Definition
Fire and rescue service provider's requirements refer to policies and procedures on safety and operation set down by each fire and rescue service employer or host organisation.

Elements and performance criteria

Element 1

Demonstrate knowledge of fire determination procedures and responsibilities.

Performance criteria

- 1.1 The procedures for investigating and determining fire origin and cause are explained in accordance with the primary reference.
- 1.2 The investigator's terms of reference are explained in relation to the fire and rescue service provider's requirements.

Element 2

Collect and preserve evidence for the determination of the origin and cause of a vegetation fire.

Performance criteria

- 2.1 Evidence is collected and preserved from a range of sources in accordance with the primary reference.
- Range may include but is not limited to – physical evidence, fire, behaviour data, fire response activity, micro fire travel indicators, macro fire travel indicators, witness statements.
- 2.2 The need for specialist investigation and assistance is identified in accordance with the primary reference.
- Range may include but is not limited to – fire behaviour analyst, electrical engineer, materials engineer, legal counsel, case management specialist, geographics information systems specialist, New Zealand Police.

Element 3

Determine area of origin and probable cause of a vegetation fire.

Performance criteria

- 3.1 Area of origin is determined in accordance with the primary reference.
- Range must include but is not limited to – path of fire travel, fire behaviour analysis.
- 3.2 Evidence is analysed and a hypothesis developed in accordance with the primary reference.
- 3.3 Probable fire cause is determined in accordance with the primary reference.
- Range ignition sources, elimination of other possible causes, environmental conditions, fire behaviour.

Element 4

Report on a vegetation fire investigation.

Performance criteria

- 4.1 Reports are prepared in accordance with the primary reference and the fire and rescue service provider's requirements.
- 4.2 Evidence is presented in accordance with the primary reference and the fire and rescue service provider's requirements.

Please note

Providers must be accredited by NZQA, or an inter-institutional body with delegated authority for quality assurance, before they can report credits from assessment against unit standards or deliver courses of study leading to that assessment.

Industry Training Organisations must be accredited by NZQA before they can register credits from assessment against unit standards.

Accredited providers and Industry Training Organisations assessing against unit standards must engage with the moderation system that applies to those standards.

Accreditation requirements and an outline of the moderation system that applies to this standard are outlined in the Accreditation and Moderation Action Plan (AMAP). The AMAP also includes useful information about special requirements for organisations wishing to develop education and training programmes, such as minimum qualifications for tutors and assessors, and special resource requirements.

Comments on this unit standard

Please contact the Fire and Rescue Services Industry Training Organisation info@frsito.org.nz if you wish to suggest changes to the content of this unit standard.