

## Operate light portable pumps in a vegetation fire environment

**Level** 2

**Credits** 2

**Purpose** People credited with this unit standard are able to: prepare a pump site; set up a light portable pump; operate a light portable pump in a vegetation fire situation; recommission a light portable pump after use; and restore a pump site.

**Subfield** Fire and Rescue Services

**Domain** Fire and Rescue Services - Vegetation

**Status** Registered

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**Entry information** Open.

**Accreditation** Evaluation of documentation 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>.

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### Special notes

- 1 Compliance with the fire and rescue service provider's Health and Safety policy and procedures is mandatory.
- 2 Definitions  
*Light portable pumps* include pumps that are hand-primed and started, have no instrumentation, and of which the output may be controlled by installing waterway equipment to the output side. Examples of light portable pumps are Brown Brothers, Wajax, Aqualite, and floating types.  
*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.

- 3 Assessment against this unit standard may take place under real or practical simulated conditions.

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## Elements and performance criteria

### Element 1

Prepare a pump site.

#### Performance criteria

- 1.1 Pump site is selected in accordance with the fire and rescue service provider's requirements.
- 1.2 Selected pump site allows access to water supply, secure working area for pump, and water supply is sufficient for the fire situation.
- 1.3 Techniques to ensure continuity of water supply are demonstrated in accordance with the fire and rescue service provider's requirements.
- Range vortex, digging or damming stream, portable or improvised dam, blockage of suction inlet.

### Element 2

Set up a light portable pump.

#### Performance criteria

- 2.1 Selected pump allows the required volume and pressure of water to be delivered from water source to the required location.
- 2.2 Equipment and additives are selected in accordance with the requirements of the fire situation.
- Range hydroblender or foam-making equipment.
- 2.3 Suction inlet is situated to minimise damage to pump, or restriction to the water flow from inducted material in accordance with the fire and rescue service provider's requirements.

### Element 3

Operate a light portable pump in a vegetation fire situation.

#### Performance criteria

- 3.1 Pump is primed, started, operated, and shut down in accordance with the manufacturer's specifications.

- 3.2 Safe working practices are demonstrated in accordance with the fire and rescue service provider's requirements.
- Range personal protection equipment (PPE), refuelling operations, water hammer, jet reaction, communication.
- 3.3 Principles of relay pumping are demonstrated in accordance with the fire and rescue service provider's requirements.
- Range open and closed relays.
- 3.4 Communication is maintained between water supply and delivery points for duration of operation in accordance with the fire and rescue service provider's requirements.
- Range may include – hand signals, radio, runner.
- 3.5 Fuel, oil, additives, and water supplies are monitored to maintain continuous operation in accordance with manufacturer's specifications and the fire and rescue service provider's requirements.
- 3.6 Fault-finding and resolution of any faults in the pumping operations are demonstrated in accordance with manufacturer's specifications and the fire and rescue service provider's requirements.

#### **Element 4**

Recommission a light portable pump after use.

#### **Performance criteria**

- 4.1 Pump is made ready for immediate use in accordance with manufacturer's specifications and the fire and rescue service provider's requirements.
- Range drained, cleaned, refuelled, tested.
- 4.2 Documentation is completed in accordance with the fire and rescue service provider's requirements.

#### **Element 5**

Restore a pump site.

#### **Performance criteria**

- 5.1 The pump site is restored to ensure environmental damage is minimal.
- 5.2 Water supply is restored to original condition in accordance with the fire and rescue service provider's requirements.
- 5.3 Any residual damage is communicated to the crew leader in accordance with the fire and rescue service provider's requirements.

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**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.

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**Comments on this unit standard**

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