

<b>Title</b>	<b>Rescue an injured or disabled person from a tree</b>		
<b>Level</b>	<b>4</b>	<b>Credits</b>	<b>8</b>

<b>Purpose</b>	People credited with this unit standard are able to: demonstrate knowledge of harm that may result from working at heights in the forest industry; describe and rig the equipment used in tree rescue; rescue an injured or disabled person from a tree as a climber; rescue an injured or disabled person from a tree as the anchor; and take action regarding the rescued person's injuries and dismantle, examine, and store rescue equipment.
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<b>Classification</b>	Forestry > Forest Silvicultural Operations
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<b>Available grade</b>	Achieved
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### Guidance Information

- 1 Legislation relevant to this unit standard includes the Health and Safety at Work (HSW) Act 2015; the Resource Management (National Environmental Standards for Plantation Forestry) Amendment Regulations 2018; and any subsequent amendments.
- 2 References  
*Approved Code of Practice (ACOP) for Safety and Health in Forestry Operations*, December 2012, available from <https://worksafe.govt.nz/>.  
New Zealand Forest Owners Association, *Forest Practice Guides* (2019), and any subsequent amendments, available from <https://www.nzfoa.org.nz>.
- 3 *Best practice guidelines* refer to *Best practice guidelines for working at height in New Zealand*, published by Ministry of Business, Innovation and Employment (MBIE) and available at <https://www.business.govt.nz/worksafe/information-guidance/all-guidance-items/best-practice-guidelines-for-working-at-height-in-new-zealand/working-height.pdf>.
- 4 Fall protection devices and ancillary equipment referred to in this unit standard are as described in AS/NZS 1891.1: 2007, *Industrial fall-arrest systems and devices – Harnesses and ancillary equipment*, and 1891.4: 2000, *Industrial fall-arrest systems and devices – Selection, use and maintenance*.
- 5 *Rescue plan* refers to the '*Silviculture: Working at Heights Rescue Plan*' developed by Juken New Zealand Ltd for the recovery of an injured or disabled person from a tree, and available from Juken New Zealand, PO Box 1239, Gisborne.

**6 Definitions**

*Accepted industry practice* refers to approved codes of practice and standardised procedures accepted by the wider forestry industry as examples of best practice.

*Anchor* refers to the person on the ground who anchors the rescue rope.

*Climber* refers to the person who climbs the tree to affect the rescue.

*Patient* refers to the injured or disabled person.

*Worksite procedures* refer to documented procedures used by the organisation carrying out the work and applicable to the tasks being carried out. They may include but are not limited to – standard operating procedures, site safety procedures, equipment operating procedures, quality assurance procedures, housekeeping standards, procedures to comply with legislative and local body requirements.

**7 Assessment information**

This unit standard must be assessed on-job.

All activities and evidence must meet worksite procedures and accepted industry practice.

**Outcomes and performance criteria****Outcome 1**

Demonstrate knowledge of harm that may result from working at heights in the forest industry.

**Performance criteria**

1.1 Injury caused by falling to the ground from a tree is described in accordance with the best practice guidelines.

Range injury to skeletal structure, injury to soft tissue, injury to internal organs.

1.2 Injury caused by suspension in a fall protection device is described in accordance with the best practice guidelines.

Range suspension trauma in a substantially upright position, blood pooling in the legs, loss of consciousness, renal failure.

1.3 Means of preventing or delaying suspension trauma are described in accordance with the best practice guidelines.

Range use of a purpose built 'sit' harness, assuming a substantially horizontal position, use of the legs to maintain blood circulation.

**Outcome 2**

Describe and rig the equipment used in tree rescue.

**Performance criteria**

- 2.1 Tree climbing equipment used in tree rescue is identified and described.
- Range may include but not limited to – tree climbing spurs, ladder, step, full body harness, safety belt, lanyard and/or climbing rope.
- 2.2 Tree rescue equipment items are identified, and their use is described in accordance with the rescue plan.
- Range may include but not limited to – full body harness, karabiner, controlled ascender, controlled descender, webbing sling, 11mm low stretch kernmantle rope, tag line, work positioning device, climbing lanyard, bolt cutters.
- 2.3 A figure eight on the bight is tied in the end of the rescue rope in accordance with the rescue plan.
- 2.4 The tree rescue equipment is rigged to demonstrate tree rescue procedure, in accordance with the rescue plan.

**Outcome 3**

Rescue an injured or disabled person from a tree as a climber.

**Performance criteria**

- 3.1 Tree rescue equipment kit is assembled at the foot of the tree.
- Range may include but is not limited to – climbing equipment, rescue equipment bag, 11mm low stretch kernmantle rope, blue tag line, controlled ascender, controlled descender, full body harness, webbing sling, karabiner, lanyard, bolt cutters, slip-joint pliers, locator flare.
- 3.2 The rescue rope and tag line are attached to climber's harness with figure eight on the bight knots and karabiners in accordance with the rescue plan.
- 3.3 The tree is climbed on the side away from the patient, taking rescue rope and tag line, sling, bolt cutters, second lanyard (if required), and spare step (if required), and the lanyard is secured when working position is reached, in accordance with the rescue plan.
- 3.4 A sling is choked to the tree above the patient, karabiner attached, and rescue rope threaded through and attached by karabiner to the patient's harness, in accordance with the rescue plan.
- 3.5 The tag line is attached to the patient's harness in accordance with the rescue plan.

- 3.6 The anchor is signalled to tension the rescue rope and the patient is lifted sufficiently to release lanyard, or the lanyard is cut with bolt-cutters, in accordance with the rescue plan.

#### Outcome 4

Rescue an injured or disabled person from a tree as the anchor.

#### Performance criteria

- 4.1 A sling is choked to a suitable anchor tree and a karabiner attached in accordance with the rescue plan.
- 4.2 The rescue rope is threaded through controlled descender and the descender is attached to the anchor karabiner in accordance with the rescue plan.
- 4.3 The rescue rope is tensioned to take the weight of the patient when signalled by the climber in accordance with the rescue plan.
- 4.4 The patient is lowered to the ground by the rescue rope using the controlled descender and the tag line, in accordance with the rescue plan.

#### Outcome 5

Take action regarding the rescued person's injuries and dismantle, examine, and store rescue equipment.

#### Performance criteria

- 5.1 The rescued person is assessed for any injuries, and required action is taken in accordance with first aid principles.
- 5.2 The rigging is dismantled, examined, packed, and stored.
- 5.3 Damaged or worn rigging is sent for repair or replacement.

<b>Planned review date</b>	31 December 2028
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#### Status information and last date for assessment for superseded versions

Process	Version	Date	Last Date for Assessment
Registration	1	27 October 2006	31 December 2017
Review	2	22 May 2008	31 December 2017
Review	3	10 December 2015	N/A
Review	4	25 June 2020	N/A
Rollover	5	26 April 2024	N/A

<b>Consent and Moderation Requirements (CMR) reference</b>	0173
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This CMR can be accessed at <http://www.nzqa.govt.nz/framework/search/index.do>.

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### Comments on this unit standard

Please contact Muka Tangata - People, Food and Fibre Workforce Development Council [qualifications@mukatangata.nz](mailto:qualifications@mukatangata.nz) if you wish to suggest changes to the content of this unit standard.