

<b>Title</b>	<b>Fell trees using back-pulling machine assistance</b>		
<b>Level</b>	<b>4</b>	<b>Credits</b>	<b>6</b>

<b>Purpose</b>	<p>This unit standard is intended for people employed as tree fellers in a commercial forest harvesting operation.</p> <p>People credited with this unit standard are able to: demonstrate knowledge of the use of a winch or winch equipped machine to back-pull trees to assist tree felling; prepare for tree felling where machine assistance is required to back-pull trees; and fell trees using machine assistance to back-pull trees.</p>
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<b>Classification</b>	Forestry > Tree Felling
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<b>Available grade</b>	Achieved
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<b>Prerequisites</b>	Unit 28560, <i>Fell trees in a commercial forest harvesting operation</i> , or demonstrate equivalent knowledge and skills.
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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 Tree fellers often require the use of a machine to assist in felling trees growing along boundaries, close to environmentally sensitive areas, within two tree lengths of roads, close to physical structures, and in other hazardous situations. Tree fellers using machines to assist in felling trees are responsible for the safety of the machine operator, the observer, or any other person directly involved in the felling. Machines suitable for back-pulling include tractors, skidders and cable-haulers.
- 4 Definitions  
*Accepted industry practice* refers to approved codes of practice and standardised procedures accepted by the wider forestry industry as examples of best practice.

*PPE* refers to personal protective equipment and may include but is not limited to high-visibility, protective clothing, gloves, face and eye protection, safety helmet, footwear, hearing protection, and safety devices.

*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.

## 5 Assessment information

This unit standard must be assessed on-job.

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

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## Outcomes and performance criteria

### Outcome 1

Demonstrate knowledge of the use of a winch or winch equipped machine to back-pull trees to assist tree felling.

#### Performance criteria

1.1 Situations where back-pulling may be required are described.

1.2 Rules for back-pulling trees are described.

1.3 Tree felling techniques involving back-pulling are explained.

Range machine positioning, winch use, observer, communication, rope use, positioning of strops, scarf alignment away from pulling machine.

1.4 Hazards and associated risks specific to back-pulling trees are identified, and a control measure for each is explained.

Range may include but is not limited to – ladder climbing, rope positioning, rope handling, rope bight, tree movement, slope, ground conditions, overhead hazards; evidence of six hazards is required.

### Outcome 2

Prepare for tree felling where machine assistance is required to back-pull trees.

#### Performance criteria

2.1 PPE is maintained and worn.

2.2 Personnel capability is checked to meet the requirements of the tree felling situation.

Range equipment, skills, number of people.

2.3 Requirements and responsibilities for all aspects of the operation are communicated to personnel.

2.4 Communication is established between all personnel involved using recognised industry verbal instruction and/or hand signals.

2.5 Factors affecting machine suitability are described.

Range may include but is not limited to – access, slope, ground conditions, system capability, rope positioning; evidence of four is required.

2.6 Machinery and rigging are checked to meet operational requirements.

Range winch capability, rope length, machine weight, machine power, safe working load of ropes and rigging.

2.7 Felling method is determined according to the conditions on site and the resources available.

Range direction of fall, safety, equipment, method to be employed.

**Outcome 3**

Fell trees using machine assistance to back-pull trees.

**Performance criteria**

3.1 Site and tree are assessed and felling plan determined and communicated to others involved.

3.2 Work area and escape route are prepared by the feller.

3.3 Felling is carried out.

Range sequence of cuts, timing of cuts, rope attachment, communication, use of safe area, timing of pull.

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<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	22 May 2008	31 December 2012
Revision	2	16 July 2010	31 December 2013
Revision	3	15 September 2011	31 December 2016
Review	4	19 March 2015	N/A
Review	5	25 June 2020	N/A
Rollover	6	26 April 2024	N/A

**Consent and Moderation Requirements (CMR) reference**

0173

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

**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.