

1XXXXX Plan and fell trees using advanced techniques in a tree felling operation

Kaupae Level	4
Whiwhinga Credit	25
Whāinga Purpose	<p>People with this skill standard will be able to work safely and effectively in a range of situations requiring advanced tree felling techniques in a tree felling operation. The standard is designed for ākonga/learners to assess individual trees, plan and implement felling strategies, manage hazards, and apply advanced felling techniques, while also ensuring safety for themselves and their team. This standard is intended for professional tree fellers aiming to improve their competency in complex felling scenarios, including working with minor specie, windthrown trees, steep terrain, and managing tree driving operations.</p>
Whakaakoranga me mātua oti Pre-requisites	

Hua o te ako me Paearu aromatawai | Learning outcomes and assessment criteria

Hua o te ako Learning outcomes	Paearu aromatawai Assessment criteria
1. Plan the felling	<ul style="list-style-type: none"> a. Develop a comprehensive felling plan specifying direction, pattern, and required assistance. b. Identify and control hazards within two tree lengths of the trees to be felled.
2. Assess the area to be felled	<ul style="list-style-type: none"> a. Evaluate the site for hazards, including terrain, overhead obstacles, and tree stability. b. Assess the suitability of the planned felling sequence for the site conditions. c. Verify compliance with relevant worksite procedures and acceptable industry practices.
3. Assess and plan for individual trees	<ul style="list-style-type: none"> a. Evaluate individual trees for factors such as lean, weight distribution, and wind conditions. b. Create a detailed felling plan addressing escape route, retreat distances, and required techniques. c. Prepare trees and work areas, ensuring equipment readiness and safety.
4. Prepare work area and escape route	<ul style="list-style-type: none"> a. Identify and mitigate hazards in the intended tree fall line. b. Clear obstacles and low branches, ensuring safe escape routes appropriate to the terrain. c. Establish safe distances and zones for workers.
5. Apply advanced felling techniques	<ul style="list-style-type: none"> a. Demonstrate the use of wedges, scarf cuts, and alternative back-cutting techniques to control tree falls. b. Fell trees on steep terrain and in challenging conditions, adapting techniques to manage risks. c. Perform tree driving operations safely and effectively, managing unsuccessful drives appropriately.
6. Manage windthrown trees	<ul style="list-style-type: none"> a. Assess risks and implement strategies to manage tension and compression in windthrown trees. b. Develop and execute safe techniques for removing root plates and handling instability. c. Address unique challenges posed by windthrown trees, including environmental and safety considerations.
7. Fell minor species safely and effectively	<ul style="list-style-type: none"> a. Evaluate minor species for characteristics like wood density, growth patterns, and potential decay. b. Apply species-specific methods, such as appropriate scarf cuts and wedges.

	c. Address safety considerations and environmental impacts of felling minor species.
8. Conduct post-felling inspections and evaluations	a. Inspect the site after felling to identify and address remaining hazards.
	b. Document deviations from the plan and unexpected outcomes to inform future operations.
	c. Verify that the site is prepared for continued work, ensuring safety zones and environmental integrity.

Pārongo aromatawai me te taumata paearu | Assessment information and grade criteria

Assessment specifications:

Akōnga/learners must be assessed against this standard in a work environment, using naturally occurring evidence.

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

All activities relevant to this standard must reflect ngā kaupapa (the principles) o te Tiriti o Waitangi.

All activities must, as relevant to candidates and/or this standard, reflect the peoples of the Pacific and other cultures, and their world views.

Definitions:

- **Accepted industry practice** refers to approved codes of practice and standardised procedures accepted by the wider tree felling industries as examples of best practice.
- **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.
- **Kaitiakitanga**: Signifies guardianship and stewardship, highlighting the responsibility to protect and preserve the natural environment for future generations.
- **Rangatiratanga**: Signifies self-determination and leadership, emphasizing autonomy and the ability to make decisions for oneself or one's community.

Recommended skills and knowledge

It is recommended that people hold credits for standard 28560, Fell trees in a commercial forest harvesting operation, or 28562, Fell and clear hazardous trees, or demonstrate equivalent skills and knowledge, before being assessed against this standard.

Ngā momo whiwhinga | Grades available

Achieved.

Ihirangi waitohu | Indicative content

- **Planning and Preparation**: Rangatiratanga developing felling, assessing site and tree conditions, and managing risks.
- **Advanced Techniques**: Performing cuts and tree driving, adapting to steep terrain, and managing windthrown trees.

- **Safety and Communication:** Establishing safety zones, using hands-free communication tools, and documenting deviations from plans.
- **Environmental Considerations:** Kaitiakitanga address environmental impacts, preserving minor species, and complying with relevant legislation.

Rauemi | Resources

New Zealand Forest Owners Association, Forest Practice Guides (2019), and any subsequent amendments, available from www.nzfoa.org.nz.

Safetree wellbeing and safety resources and initiatives for the plantation forestry industry, available from www.safetree.nz/

Approved Code of Practice (ACOP) for Safety and Health in Forestry Operations, December 2012, available from www.worksafe.govt.nz.

Health and Safety at Work (HSW) Act 2015

Heritage New Zealand Pouhere Taonga Act 2014

Resource Management Act 1991

Resource Management (National Environmental Standards for Plantation Forestry) Amendment Regulations 2018

Pārongo Whakaū Kounga | Quality assurance information

Ngā rōpū whakatau-paerewa Standard Setting Body	Muka Tangata – People Food and Fibre Workforce Development Council
Whakaritenga Rārangi Paetae Aromatawai DASS classification	Agriculture, Forestry and Fisheries > Forestry > Forest Harvesting
Ko te tohutoro ki ngā Whakaritenga i te Whakamanatanga me te Whakaōritenga CMR	0173 This CMR can be accessed at: http://www.nzqa.govt.nz/framework/search/index.do

Hātepe Process	Putanga Version	Rā whakaputa Review Date	Rā whakamutunga mō te aromatawai Last date for assessment
Rēhitatanga Registration	1	[dd mm yyyy]	N/A
Arotakenga Review	<type here>	[dd mm yyyy]	[dd mm yyyy]
Kōrero whakakapinga Replacement information	N/A		
Rā arotake Planned review date	[dd mm yyyy]		

Please contact Muka Tangata at qualifications@mukatangata.nz to suggest changes to the content of this skill standard.