

40864 Support rope rescue operations

Kaupae Level	3
Whiwhinga Credit	5
Whāinga Purpose	This skill standard is intended for people supporting rope rescue operations without accessing the vertical environment. People credited with this skill standard can: determine rope rescue operational structures, related legislation and hazard management; prepare rope rescue equipment and establish simple fixed anchors to support a rope rescue system; and establish a fall protection system and communicate with personnel to work safely at height. This skill standard can be used for assessment within qualifications across the Emergency Management sector.

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

Hua o te ako Learning outcomes	Paearu aromatawai Assessment criteria
1. Determine rope rescue operational structures, related legislation and hazard management.	a. Determine health and safety requirements for rope rescue training and operations.
	b. Identify the phases of rescue and explain key tasks for each phase.
	c. Describe a tiered response plan including definition of roles.
	d. Describe three general hazards associated with rope rescue incidents and associated management strategies.
	e. Demonstrate scene size up and actions to secure the scene as a member of a team.

Hua o te ako Learning outcomes	Paearu aromatawai Assessment criteria
2. Prepare rope rescue equipment and establish simple fixed anchors to support a rope rescue system.	a. Describe rope rescue hardware and software strength, application and maintenance.
	b. Complete an equipment inspection and maintenance record.
	c. Tie and use knots, bends and hitches.
	d. Identify five anchor point options suitable to sustain rope rescue systems.
	e. Rig a bombproof anchor to support a rope rescue system.
	f. Perform calculations to determine the safety limits of a rope rescue system.
3. Establish a fall protection system and communicate with personnel to work safely at height.	a. Identify light stick colour codes used in rope rescue operations.
	b. Recognise and use hand signals, whistle and voice commands in rope rescue operations.
	c. Establish and use an edgeline to provide safe viewing within fall risk area.
	d. Demonstrate personal and system safety checking techniques.
	e. Maintain communication with other personnel for the duration of the incident.

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

Assessment specifications:

- Assessment of this standard must be consistent with:
 - current legislation;
 - organisation's Standard Operating Procedures (SOPs).
- Assessment must align with current best practice as described in industry manuals and texts. Various examples are listed in the resources section below.
- This standard may be assessed in simulated conditions.
- Assessment criteria 2c includes the following: knots – figure eight on the bight and alpine butterfly; bends – tape and double fisherman's; and hitches – prusik.
- Assessment criteria 2e can be a single point, or two point (load sharing) anchor.

Definitions:

- *Rope rescue* is a generic term that has been used to subsume the terms high angle rescue, low angle, line rescue, and vertical rescue.
- *Vertical environment* refers to steep and high angle environments.

Ngā momo whiwhinga | Grades available

Achieved.

Ihirangi waitohu | Indicative content**Equipment for rope rescue**

- Personal protective equipment in accordance with organisation requirements: edge protection, eye protection, whistle, rope cutter, boots, overalls, gloves, and helmet.
- Hardware materials (in accordance with organisation requirements) and strength: mechanical descender, mechanical ascender, fall arrest device, carabiner and pulley.
- Software materials (in accordance with organisation requirements) and strength: prussik cord, pre-sewn rated prussik, full body rescue harness, anchor webbing, static and or low stretch, and rescue rope.
- Rescue rope characteristics, maintenance and applications: stretch, diameter, fibre, certification, construction, washing, inspection, and storage.
- Transfer device: characteristics, maintenance and applications.
- Safe working loads of equipment.
- Maintenance of equipment as per organisational requirements.

Rope rescue operation communication methods

- Whistle commands including rope rescue and USAR. Operations where whistle commands are used in rope rescue operations, may be incompatible with other whistle command systems.
- Hand signals: up, down and stop, and rope free.
- Chemical light stick colour codes.
- Voice commands: up, down, stop rope, rock, and rope free.

Rope rescue strategies and legislation

- Phases of rescue: locate, access, stabilise, and transport.
- Tiered response plan: support, responder, technician and specialist roles.
- Relevant legislation, regulations and guidelines relating to health and safety:
 - Health and Safety at Work Act 2015.
 - Health and Safety at Work (General Risk and Workplace Management) Regulations 2016.
 - Worksafe Best Practice guidelines for working at height in New Zealand.

Hazard management

- Hazard management: helmets, gloves, light sticks, high visibility garments, barrier tape, traffic cones, placement of response vehicles, portable lighting, and restricting and securing scene access.
- Safe practices working with equipment: rescue rope, carabiners, technical hardware, technical software, and rope rescue safety equipment.

Anchor systems

- Anchor point systems to sustain rope rescue systems: natural, structural and artificial.
- Simple fixed anchor system preparation and rigging: rope or webbing based anchor, edge protection, single anchor, multiple anchors, and bombproof.
- Calculations to determine safety limits: Anchor angle forces fall factors.

Fall protection

- Established edgeline to provide safe viewing within fall risk area: variable tether, fall restraint, don harness, and helmet.
- Safety checking techniques in accordance with organisational requirements on established edgeline system (e.g. FENZ use ARCHER: anchors, rope, carabiners, harness, equipment, ready to go).

Rauemi | Resources

Where the resources have been updated, please refer to the latest version.

- Civil Defence and Emergency Management Act 2002.
<https://www.legislation.govt.nz/act/public/2002/0033/latest/whole.html>.
- Delaney, R. (2022). *Physics for roping technicians*. <https://www.ropelab.com.au/files/physics.pdf>.
- Frank, J. A [Ed]. (2021). *CMC rope rescue technician manual* (6th ed.).
https://www.cmcpro.com/equipment/rope-rescue-manual/#learn_more.
- Health and Safety at Work Act 2015. Parliamentary Council Office, Te Tari Tohutohu Parēmata.
<https://www.legislation.govt.nz/act/public/2015/0070/latest/DLM5976660.html>.
- Prattley, G. (2020). *Rope rescue and rigging: Field guide*. Over The Edge Rescue.
- Rigging Lab. Free resources. <https://rigginglabacademy.com/resources/>.
- Rhodes, P. (2020). *A practitioner's study: About rope rescue rigging* (2nd ed). Rhodes.
- Rhodes, P. (2020). *A practitioner's study – volume 2: Confined space rescue considerations for industry, construction and fire/rescue*. Rhodes.
- Rhodes, P. (2019). *A practitioner's study – volume 3: Minimalist wilderness rigging REMS and search and rescue rope rescue skills*. Rhodes.
- Worksafe. (2019). *Best practice guidelines for working at height in New Zealand*.
<https://www.worksafe.govt.nz/topic-and-industry/working-at-height/working-at-height-in-nz/>.

Pārongo Whakaū Kounga | Quality assurance information

Ngā rōpū whakatau-paerewa Standard Setting Body	Toitū te Waiora Community, Health, Education, and Social Services Workforce Development Council
Whakaritenga Rārangi Paetae Aromatawai DASS classification	Community and Social Services > Specialist Rescue > Rope Rescue
Ko te tohutoro ki ngā Whakaritenga i te Whakamanatanga me te Whakaōritenga CMR	0024

Hātepe Process	Putanga Version	Rā whakaputa Review Date	Rā whakamutunga mō te aromatawai Last date for assessment
Rēhitatanga Registration	1	25 September 2025	N/A
Kōrero whakakapinga Replacement information	NA		
Rā arotake Planned review date	31 December 2030		

Please contact Toitū te Waiora Community, Health, Education, and Social Services Workforce Development Council at qualifications@toitutewaiora.nz to suggest changes to the content of this skill standard.