

Title	Use prescription maps for forestry operations		
Level	4	Credits	10

Purpose	People credited with this unit standard are able to: demonstrate knowledge of prescription maps for forestry operations; follow a prescription map in the field; identify hazards and other features that could impact on a forestry operation, and describe control measures in the field using prescription maps; use a prescription map to collect and convey in the appropriate format locations and GPS coordinates, and to record and report features and operational information, in a forestry operation; and demonstrate knowledge of QR codes, and the use of electronic prescription maps and their technological challenges.
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Classification	Forestry > Forest Operations Advanced
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Available grade	Achieved
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Guidance Information

- Legislation and regulations relevant to this unit standard include but are not limited to:
 - Health and Safety at Work Act 2015;
 - Heritage New Zealand Pouhere Taonga Act 2014;
 - Resource Management Act 1991;
 - Resource Management (National Environmental Standards for Plantation Forestry) Amendment Regulations 2018;
 and any subsequent amendments.
- References
New Zealand Forest Owners Association, *Forest Practice Guides* (2019), and any subsequent amendments, available from <http://www.nzfoa.org.nz>.
Approved Code of Practice (ACOP) for Safety and Health in Forestry Operations, December 2012, available from <http://www.worksafe.govt.nz>.
- Definitions
Accepted industry practice refers to approved codes of practice and standardised procedures accepted by the wider forestry industry as examples of best practice.
Forestry operations include forest establishment, silviculture, harvesting, forest inventory, and forest and crew management.
GPS refers to global positioning system.
Prescription maps refer to paper-based or electronic maps which aid in the management of forestry operations.
QR code refers to quick response code.

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.

4 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 prescription maps for forestry operations.

Performance criteria

1.1 Describe the uses for prescription maps in terms of forestry operations.

Range uses include but are not limited to – management decision making, planning, environmental considerations, operational uses.

1.2 Identify and describe the purposes of vegetation maps, contour maps, forestry stand maps, topographical maps, and aerial photographs in terms of forestry operations.

1.3 Interpret features on forest stand maps and aerial photographs.

Range features may include but are not limited to – ridges, bluffs, water courses, boundaries, vegetation types, roads, landings, grid lines, historic sites, waahi tapu, environmental areas, water points, stocked areas, fence lines; evidence of ten features is required.

1.4 Align locations on prescription maps with topographical and forest maps.

1.5 Calculate distances using map scales.

Outcome 2

Follow a prescription map in the field.

Performance criteria

- 2.1 Locate points marked on prescription maps in the field using map scales and supplied measurement equipment.
- Range points may include but are not limited to – road, watercourse, trig point, stand boundary, natural features; evidence of six points is required.
- 2.2 Orientate a prescription map in the field using natural landmarks, a compass, or GPS.

Outcome 3

Identify hazards and other features that could impact on a forestry operation, and describe control measures in the field using prescription maps.

Range evidence of a paper-based and electronic prescription map is required.

Performance criteria

- 3.1 Locate hazards and other features on prescription maps.
- 3.2 Walk a block using prescription maps as a guide, and visually identify the hazards and other features.
- 3.3 Identify any hazards or other features during the block walk-through that are not already on prescription maps, and add to the map and, where appropriate, the hazard register.
- 3.4 Describe control measures to eliminate or minimise health and safety risks.

Outcome 4

Use a prescription map to collect and convey in the appropriate format locations and GPS coordinates, and to record and report features and operational information, in a forestry operation.

Performance criteria

- 4.1 Use a prescription map to collect and convey the location and GPS coordinates for a work area in the appropriate format.
- 4.2 Use a prescription map to collect and convey an emergency location and GPS coordinates in the event of an incident in the appropriate format.

4.3 Use prescription map to record and report features in a forestry operation.

Range features may include but are not limited to – ridges, bluffs, water courses, boundaries, vegetation types, roads, landings, power lines, historic sites, waahi tapu, environmental areas, water points, stocked or unstocked areas, fence lines; evidence of five features is required.

4.4 Use prescription maps to record and report operational information taken in a forestry operation.

Range operational information may include but is not limited to – road conditions, operational boundaries, weather conditions, quality control, pre-assessment data, area markup, illegal activity, storm event damage; evidence of five information types is required.

Outcome 5

Demonstrate knowledge of QR codes and the use of electronic prescription maps and their technological challenges.

Performance criteria

5.1 Describe the application of QR codes in terms of their potential uses in a forestry operation.

Range evidence of two applications is required.

5.2 Describe the use of electronic prescription maps in terms of their technological challenges and recommend solutions to mitigate their limitations in a forestry operation.

Range challenges may include but are not limited to – outdated map, limited reception coverage, app not updated, insufficient map information, lack of contours, other operational requirements; incorrect – GPS, coordinates, map, settings in app; evidence of three challenges and their solutions is required.

Planned review date	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	28 January 1995	31 December 2012
Review	2	8 November 1996	31 December 2012
Revision	3	19 June 1998	31 December 2012
Review	4	5 December 2000	31 December 2012
Review	5	22 May 2008	31 December 2012
Revision	6	16 July 2010	31 December 2016
Review	7	19 March 2015	31 December 2017
Review	8	10 December 2015	31 December 2024
Review	9	25 June 2020	31 December 2024
Review	10	24 November 2022	N/A
Revision	11	14 December 2023	N/A
Rollover	12	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 if you wish to suggest changes to the content of this unit standard.