



Australian Government

FWPFGM5208 Manage road construction and maintenance

Release: 1

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Modification History

Release	Comment
1	Replaces equivalent unit FPIFGM5208B Manage road construction and maintenance, which was first released with FPI11 Forest and Forest Products Training Package Version 2.2. This is the first release of this unit in the new standards format.

Application

This unit of competency describes the outcomes required to plan and implement road construction and maintenance procedures. The unit covers a range of road types including heavy duty, all weather logging roads and unsurfaced earth roads.

The unit applies to those working in forest growing and management in a supervisory or management position.

No licensing, legislative, regulatory, or certification requirements apply to this unit at the time of publication.

Pre-requisite Unit

Nil

Unit Sector

Forest Growing and Management

Elements and Performance Criteria

<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the range of conditions.</i>
1. Plan road construction and maintenance	1.1 Review forest management plan and requirements for roads. 1.2 Obtain and assess logging and topography details while applying environmental management considerations. 1.3 Review road location, design and construction requirements and analyse costs, benefits and impact on the forest. 1.4 Review timeframe for use of the road and likely weather

	conditions. 1.5 Calculate and document timber extraction methods and storage requirements for roads, tracks, equipment placement, falling and recovery rates, and delivery schedules. 1.6 Consult with authorities and obtain approvals for road development. 1.7 Prepare formal road construction/maintenance plan for approval in line with site procedures and environmental requirements.
2. Implement road construction	2.1 Brief site personnel on road and track design and construction plan. 2.2 Coordinate and schedule personnel, material and equipment required for the construction. 2.3 Plan operational procedures for roads with site personnel in line with design plan and environmental requirements. 2.4 Monitor construction of roads and tracks and report unexpected ground, water, vegetation or other environmental conditions to appropriate personnel. 2.5 Provide technical assistance to site personnel in preparing roads and tracks.
3. Maintain roads	3.1 Assess and record roads and tracks for maintenance and requirements. 3.2 Coordinate personnel, material and equipment required for maintenance, taking seasonal weather conditions into consideration. 3.3 Monitor site environmental conditions and make changes as required. 3.4 Organise maintenance schedule for the site in conjunction with operational personnel. 3.5 Maintain communication with operational staff, clients and contractors throughout maintenance activities to ensure smooth operations.
4. Monitor and review road construction and maintenance	4.1 Develop monitoring schedule in line with organisational policy and environmental requirements. 4.2 Checks that WHS procedures are observed and site environmental conditions are adhered to throughout works. 4.3 Check that performance indicators, targets and specifications are being met and that process or methods are amended as required. 4.4 Analyse data and documentation from construction or maintenance activities and measure performance against the plan.

	4.5 Prepare recommendations for improvements and further work. 4.6 Record and report on road construction and maintenance process.
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Foundation Skills

This section describes those core and employment skills that are essential to performance and are not explicit in the performance criteria.

Numeracy skills to:	• calculate materials required for road construction • estimate time for tasks • manage budgets
Oral communication skills to:	• coordinate personnel and stakeholders
Planning and organising skills to:	• schedule work and meet established timeframes

Range of Conditions

Not Applicable

Unit Mapping Information

FPIFGM5208B Manage road construction and maintenance

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=0d96fe23-5747-4c01-9d6f-3509ff8d3d47>

Assessment Requirements for FWPFGM5208 Manage road construction and maintenance

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Performance Evidence

A person demonstrating competency in this unit must satisfy all of the elements, performance criteria and foundation skills of this unit. If a specific volume or frequency is not stated below, then evidence must be provided that the following requirements have been performed on at least one occasion:

- follow organisational policies and procedures for road construction and maintenance
- plan for the efficient and cost-effective construction of a road
 - manage a road construction team to achieve established outcomes, including:
 - consulting with and obtaining approvals from authorities
 - providing technical assistance
 - co-ordinating and scheduling personnel, materials and equipment
- manage WHS in the course of road construction
- manage the protection of the environment in the course of road construction
- manage contingencies, including weather changes, in the course of road construction
- report on the outcomes of road construction and maintenance.
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Knowledge Evidence

A person competent in this unit must be able to demonstrate knowledge of:

- organisational policies and procedures for managing road construction and maintenance
- environmental risks and hazards associated with road construction
- materials used for road construction and their properties including:
 - road base

- gravel
- crushed rock
- sand and bluestone
- cords and pipes for water crossings
- logging operations and log extraction methods
- road construction and maintenance procedures
- principles of road design and development, including:
 - control points
 - required grades
 - water crossing points and structures
- types of tools, plant and equipment used for road construction and procedures for their safe use and maintenance.
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Assessment Conditions

The following resources must be made available:

- organisational policies and procedures relevant to managing road construction and maintenance
- maps, plans, regulations and other documentation relevant to the construction of a road in a forestry setting
- relevant personnel for the purposes of communicating information

Competency is to be assessed in the workplace or a simulated environment that accurately reflects performance in a real workplace setting.

Assessor requirements

Assessors must:

- hold the appropriate assessor competency standards as outlined in regulations; and
- be able to demonstrate vocational competencies at least to the level being assessed; and
- be able to demonstrate how they are continuing to develop their VET knowledge and skills as well as maintaining their industry currency and assessor competence.

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