



Australian Government

FWPCOT4214 Plan for and coordinate quarry operations

Release: 1

FWPCOT4214 Plan for and coordinate quarry operations

Modification History

Release	Comments
Release 1	This version released with FWP Forest and Wood Products Training Package Version 7.0.

Application

This unit of competency describes the skills and knowledge required to plan for and develop a quarry (borrow pit) for the purpose of sourcing material for the construction and maintenance of forest roads and tracks.

The unit applies to individuals involved in planning and supervising quarry development as part of forestry operations.

All work must be carried out to comply with workplace procedures, according to state/territory health and safety regulations, legislation and standards that apply to the workplace.

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

Pre-requisite Unit

Nil

Unit Sector

Common Technical (COT)

Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Plan for quarry development	1.1 Review need for and processes for establishing a quarry 1.2 Consult with relevant parties about possible quarry sites 1.3 Inspect possible quarry sites and assess in terms of location, access to forestry operations, land tenure and quantity and quality of material

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	available for extraction 1.4 Analyse samples of materials from possible quarry sites and test for suitability 1.5 Identify environmental protection, adjacent land use, regulatory or zoning issues that may impact on the selection of the proposed quarry site 1.6 Conduct a cost-benefit analysis to assess the viability and lifespan of the proposed quarry site 1.7 Determine the location of the quarry 1.8 Determine and document operational and site procedures for quarry development 1.9 Obtain necessary licences or permits for quarry development
2. Coordinate quarry development	2.1 Confirm type and quantity of material and methods of extracting material according to the quarry development plan 2.2 Establish schedule for quarry development according to quarry development plan 2.3 Identify, assess and take actions to mitigate risks and hazards associated with quarrying operations 2.4 Coordinate and schedule people, materials and equipment required for quarry development 2.5 Liaise with employees and contractors to ensure that a coordinated approach is taken to the development and implementation of work plans, road maintenance and construction plans associated with quarry development 2.6 Monitor quarry development for compliance with quarry development plan and safety, regulatory and environmental requirements 2.7 Document quarry development activities according to workplace procedures 2.8 Adjust quarry development plan as required in accordance with workplace procedures
3. Review quarry development	3.1 Review approach to quarry development 3.2 Monitor quarry development and identify potential improvements according to workplace procedures 3.3 Report on outcomes of quarry development to appropriate

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	personnel

Foundation Skills

This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.

Skill	Description
Reading	Interpret familiar and detailed workplace policies and procedures and complex documents such as quarry plans
Writing	Produce detailed written reports on quarry site selection and development
Oral communication	Ask open and closed questions and use active listening techniques to gather information related to quarry development
Numeracy	Interpret complex numerical data relating to the quality and quantity of quarry materials

Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FWPCOT4214 Plan for and coordinate quarry operations	FWPFGM4208 Plan a quarry	New title Updated Elements and Performance Criteria Revised Performance Evidence and Knowledge Evidence Revised Assessment Conditions	Not equivalent

Links

Companion Volumes, including Implementation Guides, are available at VETNet: -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=0d96fe23-5747-4c01-9d6f-3509ff8d3d47>

Assessment Requirements for FWPCOT4214 Plan for and coordinate quarry operations

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Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that the individual has coordinated the development of one quarry (borrow pit) for sourcing material for the construction and maintenance of a forest road or track.

In performing this activity, the individual has:

- assessed site location, quantity and quality of materials and environmental protection requirements
- prepared site procedures and coordinated people, resources and equipment for the development of quarry
- monitored quarry development for compliance and identified methods of improvement
- recorded and reported on the outcomes of quarry development.

Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- workplace procedures for planning, coordinating and reviewing the development of a quarry
- selection criteria for quarry sites
- types and properties of quarry materials and their use in the construction and maintenance of forest roads and tracks
- methods of testing quarry materials used in the construction and maintenance of forest roads and tracks
- quarrying operations
- planning and sequencing quarrying activities
- risks and hazards associated with quarrying
- methods of extraction from quarries:
 - with plant and equipment

- using blasting methods
- project planning techniques.

Assessment Conditions

Assessment of the skills in this unit of competency must take place under the following conditions:

- physical conditions:
 - skills must be demonstrated in a forest work environment or an environment that accurately represents workplace conditions
- resources, equipment and materials:
 - potential quarry sites
 - plant, equipment and materials relevant to quarry operations
- specifications:
 - documentation related to quarry planning and permits
 - workplace safety and environmental policies and procedures applicable to quarry development
 - workplace policies and procedures relevant to quarry development.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

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