



Australian Government

Department of Education, Employment and Workplace Relations

RIIRAI608A Establish quarry development

Release: 1

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Modification History

Not applicable.

Unit Descriptor

This unit covers establishing quarry development in the extractive industries. It includes: determining the site development parameters; identifying and securing the development site; preparing the site development plan; and obtaining the site development consent.

Application of the Unit

This unit is appropriate for those working in a management role or as a technical specialist, within:

- Extractive industries

Licensing/Regulatory Information

Refer to Unit Descriptor.

Pre-Requisites

Not applicable.

Employability Skills Information

This unit contains employability skills.

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.
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Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Determine site development parameters	1.1. Identify, interpret and clarify relevant compliance documentation and use them in the development and document site development parameters 1.2. Identify, interpret and clarify relevant marketing information and use it to development and document site development parameters
2. Identify and secure development site	2.1. Identify sites with the potential of meeting the required parameters for the quarry development 2.2. Identify and interpret the titles and zoning on potential development sites 2.3. Obtain permission required for the investigation of potential quarry development sites 2.4. Organise and manage the investigation of potential development sites 2.5. Determine the most suitable quarry site based on the outcomes of the investigations and the development parameters and cost of acquisition, development and operation of the site 2.6. Obtain required organisational approvals and secure the development site
3. Prepare site development plan	3.1. Involve internal and external stakeholders in the planning process in a way that uses their contribution effectively and gains their support for the outcomes 3.2. Identify and document the options for the end use of the site 3.3. Organise and manage community consultation on the proposed site development 3.4. Organise and manage the design and documentation of the preliminary plan of the pit development based on the geological, hydrological and survey data and relevant legislative and organisation requirements and procedures 3.5. Organise and manage the design and

	documentation of the preliminary plan of the processing plant to meet the site development parameters and based on the geological, hydrological and survey data and relevant legislative and organisation requirements and procedures 3.6. Organise and manage the design and documentation of the preliminary site access and infrastructure to meet the site development parameters and based on the geological and survey data and relevant legislative and organisation requirements and procedures 3.7. Organise and manage the assessment and documentation of the environmental impact of the proposed site development 3.8. Determine and document resource implications of the site development plan
4. Obtain site development consent	4.1. Organise and manage the preparation of the development application and the required accompanying documentation 4.2. Identify and provide support required for the site development application 4.3. Communicate the progress and outcomes of the development application to relevant stakeholders

Required Skills and Knowledge

This section describes the skills and knowledge required for this unit.

Required skills

Specific skills are required to achieve the performance criteria in this unit, particularly for the application in the various circumstances in which this unit may be applied. This includes the ability to carry out the following as required to establish quarry development:

- apply legislative, organisation and site requirements and procedures
- interpret and apply geological data
- interpret and apply hydrological data
- interpret and apply survey data
- interpret and apply marketing data
- provide team leadership
- apply procedures for the selection of development strategies
- apply procedures for the selection of plant and equipment
- apply development plans development and initiation procedures

Required knowledge

Specific knowledge is required to achieve the Performance Criteria of this unit, particularly its application in a variety of circumstances in which the unit may be used. This includes knowledge of the following, as required to establish quarry development:

- legislative and organisation's risk, statutory compliance, health, safety, environmental, quality and communication requirements and procedures
- geological data
- hydrological data
- survey data
- marketing information
- site development parameters
- site development options and procedures
- consultative and coaching techniques
- team leadership techniques
- operational techniques required for execution of the plan
- plant and equipment capabilities
- work planning techniques
- recording and reporting systems
- work monitoring methods

Evidence Guide

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

Overview of assessment	
Critical aspects for assessment and evidence required to demonstrate competency in this unit	The evidence required to demonstrate competency in this unit must be relevant to worksite operations and satisfy all of the requirements of the performance criteria, required skills and knowledge and the range statement of this unit and include evidence of the following: • knowledge of the requirements, procedures and instructions for the establishing of a quarry development • implementation of procedures and techniques for the safe, effective and efficient completion of the establishing of a quarry development • the identification of the relevant information and scope of the work required to meet the required outcomes • the identification of viable program options and the selection of programs that best meet the required outcomes • working with others to undertake and complete the establishing of a quarry development • consistent and timely completion of the establishing of a quarry development
Context of and specific resources for assessment	• This unit must be assessed in the context of the work environment. Where personal safety or environmental damage are limiting factors, assessment may occur in a simulated environment provided it is realistic and sufficiently rigorous to cover all aspects of workplace performance, including task skills, task management skills, contingency management skills and job role environment skills. • The assessment environment should not disadvantage the participant. For example, language, literacy and numeracy demands of assessment should not be greater than those required on the job. • Customisation of assessment and delivery

	environment to sensitively accommodate cultural diversity. • Aboriginal people and other people from a non English speaking background may have second language issues. • Assessment of this competency requires typical resources normally used in a civil works environment. Selection and use of resources for particular worksites may differ due to site circumstances. • Where applicable, physical resources should include equipment modified for people with disabilities. • Access must be provided to appropriate learning and/or assessment support when required.
Method of assessment	This unit may be assessed in a holistic way with other units of competency. The assessment strategy for this unit must verify required knowledge and skill and practical application using more than one of the following assessment methods: • written and/or oral assessment of the candidate's required knowledge • observed, documented and/or first hand testimonial evidence of the candidate's: • implementation of appropriate procedures and techniques for the safe, effective and efficient achievement of the required outcomes • identification of the relevant information and scope of the work required • identification of viable options and the selection of options that best meet the required outcomes • consistently achieving the required outcomes • first hand testimonial and documentary evidence of the candidate's: • working with others to establish a quarry development • consistent and timely gaining of approval of a quarry development • provision of clear, timely required support and advice on the implementation of the

	quarry development
Guidance information for assessment	Consult the SkillsDMC User Guide for further information on assessment including access and equity issues.

Range Statement

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

Relevant compliance documentation

may include:

- legislative, organisation and site requirements and procedures
- manufacturer's guidelines and specifications
- Australian standards
- code of practice
- Employment and workplace relations legislation
- Equal Employment Opportunity and Disability Discrimination legislation

Site development parameters

may include:

- risk management requirements
- occupational health and safety requirements
- environmental
- minimum operating distances from other operations or neighbouring structures or land use
- required production volumes
- product requirements
- quality requirements
- market locations and volumes
- existing processing plant capacity
- catering for the rock, sand or gravel characteristics
- raw feed requirements to meet product needs
- annual extraction or sales limitations
- potential environmental works
- potential processing plant location
- raw feed haulage requirements
- land clearance requirements
- stripping and stockpiling of soil requirements
- progressive and final rehabilitation requirements
- final landform and use requirements
- bench heights limitations
- water management requirements
- general development consent requirements

	• general operating hours limitations
Marketing information may include:	• product specifications • sales volumes • market locations
Permission required may include:	• entering into option agreements • payment of access fees • entering into rehabilitation agreements
Investigation of potential development sites may include:	• search of geological survey data • title search • zoning search • field geological investigation • drilling programs • trial blasts • trail excavation • testing of raw feed samples • collection and analysis of hydrological data • community consultation • consultation with regulatory authorities
Internal and external stakeholders may include:	• senior management • operating managers • project managers • other employees • regulatory authority representatives • tenderers • contractors • community • suppliers • customers
Geological data may include:	• limits of the deposit • rock (or other resource) types and characteristics • faults and joints • water tables or other water sources
Hydrological data may include:	• rainfall • surface water • catchment areas • run-off characteristics • groundwater • existing streams, bores and dams
Survey data may include:	• site and neighbouring land form • site and neighbouring boundaries and

	- structures • site and neighbouring roads and other infrastructure • approved limits of extraction • title details
Resource implications may include:	• human • fixed and mobile plan • equipment • technology • buildings • infrastructure • power/energy • financial

Unit Sector(s)

Resources and Infrastructure

Competency field

Refer to Unit Sector(s).

Co-requisite units

Not applicable.