



Australian Government

Department of Education, Employment and Workplace Relations

NWP514B Implement and manage groundwater management plan

Revision Number: 2

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Modification History

NWP514B Release 2: Layout adjusted. No changes to content.

NWP514B Release 1: Primary release.

Unit Descriptor

This unit of competency describes the outcomes required to implement and manage the management plan to use groundwater as a resource for water supply.

Application of the Unit

This unit supports the attainment of skills and knowledge required for managers in water organisations with responsibility for the management of groundwater resources.

Licensing/Regulatory Information

Not applicable.

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 required performance needed to demonstrate achievement of the element. Where ***bold italicised*** text is used, further information is detailed in the range statement. Assessment of performance is to be consistent with the evidence guide.

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1 Prepare for the management of groundwater.	1.1 Confirm performance measures for the groundwater management plan. 1.2 Identify and interpret legislative requirements and organisational policies for the management of groundwater. 1.3 Identify stakeholder requirements that impact on the groundwater quality, quantity and conservation. 1.4 Gather historical groundwater information and evaluate as input to the management process. 1.5 Identify, interpret and assess water quality and quantity requirements. 1.6 Identify and interpret environmental and developmental factors that impact on the groundwater.
2 Implement the groundwater management plan.	2.1 Inform and educate stakeholders about groundwater activity regulations. 2.2 Develop management plan activities. 2.3 Develop and present the implementation plan. 2.4 Coordinate management plan activities.
3 Monitor the groundwater management plan.	3.1 Design and implement monitoring and testing programs. 3.2 Analyse, interpret and record test results. 3.3 Identify and investigate current and/or potential problems and report results and recommendations. 3.4 Monitor groundwater usage and quality according to the plan. 3.5 Identify, investigate and report breaches of usage provisions and changes to quality parameters.
4 Evaluate and review the performance of the groundwater management plan.	4.1 Identify, investigate and report deviations of planned groundwater usage quality and management from plan procedures. 4.2 Make recommendations for changes to objectives and implementation procedures.

Required Skills and Knowledge

This describes the essential skills and knowledge and their level, required for this unit.

Required skills:

- communicate effectively to a wide and diverse group of stakeholders
- interpret and apply legislation and policies
- coordinate measuring and testing activities
- analyse test results
- oversee investigative procedures
- coordinate and oversee the conduct of investigations
- assess environmental impacts
- develop and implement groundwater management plans
- link implementation plans to the groundwater management plan objectives and organisational requirements
- prepare reports and recommendations

Required knowledge:

- relevant legislation
- relevant enterprise policies
- range of appropriate measuring and testing procedures
- investigation procedures
- risk management principles
- customer expectations and requirements
- groundwater analysis procedures
- groundwater hydraulics
- environmental legislation

Evidence Guide

The evidence guide provides advice on assessment and must be read in conjunction with the Performance Criteria, Required Skills and Knowledge, the Range Statement and the Assessment Guidelines for the Training Package.

Critical aspects for assessment and evidence required to demonstrate competency in this unit

The candidate should demonstrate the ability to implement and manage the management plan to use groundwater as a resource for water supply including:

- gathering, interpreting and synthesising information (including historical data, current legislation and standards, stakeholder views and water quantity and quality test results) to underpin the implementation of the groundwater management plan
- consulting widely and effectively
- developing effective implementation plans that address the objectives and requirements specified in the management plan
- investigating and reporting breaches of groundwater usage
- developing, implementing and overseeing testing and other monitoring arrangements to track the performance of the groundwater management plan

Context of and specific resources for assessment

Access to the workplace and resources including:

- documentation that should normally be available in a water industry organisation
- relevant codes, standards, and government regulations

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.

Assessment processes and techniques must be culturally appropriate, and appropriate to the language and literacy capacity of the candidate and the work being performed.

Validity and sufficiency of evidence requires that:

- competency will need to be demonstrated over a period of time reflecting the scope of the role and the practical requirements of the workplace
- where the assessment is part of a structured learning experience the evidence collected must relate to a number of performances assessed at different points in time and separated by further learning and practice
- a decision of competence should only be made when the assessor has complete confidence in the person's

competence over time and in various contexts

- all assessment that is part of a structured learning experience must include a combination of direct, indirect and supplementary evidence
- where assessment is for the purpose of recognition (RCC/RPL), the evidence provided will need to be authenticated and show that it represents competency demonstrated over a period of time
- assessment can be through simulated project-based activity and must include evidence relating to each of the elements in this unit

In all cases where practical assessment is used it will be combined with targeted questioning to assess the underpinning knowledge. Questioning will be undertaken in a manner appropriate to the skill levels of the operator, any cultural issues that may affect responses to the questions, and reflecting the requirements of the competency and the work being performed.

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. Add any 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.

Legislative requirements may include:

- relevant federal legislation
- relevant state or territory legislation
- relevant local government by-laws

Historical groundwater information may include:

- relevant geological data
- hydro-geological data
- hydrometrical information
- previous monitoring studies
- previous risk assessments
- land use studies
- environment management studies

Environmental and development factors may include:

- human interaction
- absorption
- pollutants
- nutrients
- salinity
- cultural aspects
- land use
- other human activity
- vegetation
- urban growth
- industry growth

Monitoring and testing programs may include:

- resource yield
- testing procedures
- testing medium
- frequency
- quality requirements
- geophysical work
- modelling
- surveys
- water quality

Unit Sector(s)

Not applicable.

Competency field

Collection and distribution