



**Australian Government**

**Department of Education, Employment and Workplace Relations**

# **NWP516B Implement and manage surface water management plan**

**Revision Number: 1**

## **NWP516B Implement and manage surface water management plan**

### **Modification History**

Not applicable.

### **Unit Descriptor**

**Unit descriptor** This unit of competency describes the outcomes required for the implementation of the management plan for surface water to ensure environmental considerations are met and source of supply is maintained.

### **Application of the Unit**

**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 surface water resources.

### **Licensing/Regulatory Information**

Not applicable.

### **Pre-Requisites**

Not applicable.

### **Employability Skills Information**

**Employability Skills** This unit of competency 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 required skills and knowledge and/or the range statement. Assessment of performance is to be consistent with the evidence guide.

## Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
<b>1 Implement and coordinate monitoring and testing program.</b>	<p>1.1 Confirm performance measures of the <i>surface water</i> management plan.</p> <p>1.2 Design and implement <i>monitoring and testing programs</i>.</p> <p>1.3 Coordinate activities relating to the surface water plan.</p> <p>1.4 Interpret and record test results and education programs.</p> <p>1.5 Identify and investigate current and/or potential problems and report results and recommendations.</p> <p>1.6 Gather <i>historical surface water information</i> and evaluate.</p> <p>1.7 Monitor <i>water usage, water flow and water quality</i> according to the plan.</p>
<b>2 Monitor and evaluate performance of surface water management plans.</b>	<p>2.1 Identify, investigate and report deviations of planned water usage and quality and management plan procedures.</p> <p>2.2 Review objectives of the management and implementation plans.</p> <p>2.3 Review parameters for water usage and quality.</p> <p>2.4 Monitor and review <i>environmental factors that impact on surface water</i>.</p> <p>2.5 Make recommendations for changes to plan objectives and procedures and usage and quality parameters.</p> <p>2.6 Provide advice and guidance to water <i>users and stakeholders</i>.</p>
<b>3 Report on monitoring and implementation activities.</b>	<p>3.1 Identify and report deviations from the management plan.</p> <p>3.2 Review and report objectives of the management and implementation plans.</p> <p>3.3 Make recommendations for changes to plan objectives.</p>

## **Required Skills and Knowledge**

### **REQUIRED SKILLS AND KNOWLEDGE**

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

#### **Required skills:**

- interpret and apply legislation and policies
- coordinate measuring and testing activities
- conduct investigations
- assess environmental impacts
- communicate effectively with stakeholders and users
- make decisions based on the analysis of data
- report clearly and effectively.

#### **Required knowledge:**

- relevant legislation
- relevant enterprise policies
- measuring and testing procedures
- investigation procedures
- risk management principles
- customer expectations and requirements
- climatic and weather characteristics and impacts
- hydraulic analysis.

# Evidence Guide

## 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 management plans for surface water to ensure environmental considerations are met and source of supply is maintained:

- 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 surface water management plan
- designing and implementing testing processes and programs
- monitoring and evaluating the outcomes of the surface water management plan
- providing advice about water usage and communicate with stakeholders and users
- preparing reports and recommendations for future action.

### **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

## EVIDENCE GUIDE

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.

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

### 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.

***Surface water*** sources may include:

- dams and reservoirs
- weirs and rivers
- lakes
- creeks and streams
- wetlands
- off stream storage
- catchment areas
- storage tanks.

***Monitoring and testing programs*** may include:

- resource yields
- resource status
- flow rates
- testing procedures
- testing medium
- testing frequency
- sampling locations
- testing variables
- land use changes.

***Historical surface water information*** may include:

- hydrometrical information
- previous monitoring studies
- previous risk assessments
- geological data
- hydro-geological data
- land use studies
- environmental management studies
- anecdotal information from land owners.

***Water usage, water flow and water quality*** may be influenced by a range of factors including:

- usage and environment allocations
- licenses
- legislative requirements
- enterprise policies
- cost benefit analysis.

***Environmental factors that impact on surface water***

- environmental flow requirements
- catchment usage and management

**RANGE STATEMENT**

may include:

- weather and climate
- rainfall run-off
- chemicals
- salinity
- nutrients
- reservoir operations
- natural events.

***Users and stakeholders***

may include:

- water consumers
- government
- water authorities
- environmental departments
- recreational users of the area
- interest groups
- industry
- extractive industry.

**Unit Sector(s)**

Not applicable.

**Competency field**

**Competency field**      Collection and distribution