



**Australian Government**

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

# **NWP419B Coordinate and monitor river system usage**

**Revision Number: 2**

## NWP419B Coordinate and monitor river system usage

### Modification History

NWP419B Release 2: Layout adjusted. No changes to content.

NWP419B Release 1: Primary release.

### Unit Descriptor

This unit of competency describes the outcomes required to monitor and coordinate the operation of river systems and measure and report on river flows, including flood plains and the river environment.

### Application of the Unit

This unit supports the attainment of skills and knowledge required for staff with a specific responsibility for ensuring that river system usage complies with organisational and statutory requirements.

### 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
<b>1 Confirm performance measures in river system management plan.</b>	1.1 Identify water flow requirements. 1.2 Identify water quality and quantity requirements. 1.3 Identify environmental factors that impact on water flows and quality. 1.4 Identify performance measures for the resource and operations.
<b>2 Monitor performance of assets.</b>	2.1 Correctly select, fit and use <i>equipment</i> , including personal protective equipment. 2.2 Apply monitoring and testing programs. 2.3 Monitor assets to ensure performance meets specifications in the river system management plan.
<b>3 Coordinate processes.</b>	3.1 Monitor water usage and quality according to the river system management plan. 3.2 Coordinate processes to meet planned requirements and targets. 3.3 Apply <i>system adjustments</i> to ensure that system performance meets <i>organisational and statutory requirements</i> .
<b>4 Report outcomes of coordination and monitoring.</b>	4.1 Analyse, record and report coordination and monitoring data according to organisational requirements. 4.2 Identify current and/or potential problems and report according to organisational procedures.

## Required Skills and Knowledge

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

### Required skills:

- solve operational problems
- produce reports and logs
- use safety equipment and personal protective equipment
- interpret plans, charts and instructions
- perform system-related calculations
- interpret policies, procedures and standards
- communicate with employees and customers
- use communication equipment
- give and receive instructions
- analyse personal and team performance
- operate computerised equipment
- identify control system faults

### Required knowledge:

- system hydraulics
- coordination processes
- system layout
- environmental aspects of river systems
- system processes
- lock out procedures for mechanical and electrical installations
- policies, procedures and legislation
- relevant utilities and service bodies
- communication systems
- risk factors and potential hazards involved with river systems
- equipment operation, capacity and limitations
- system calculations
- effects of weather and conditions on operation of river systems
- pipes and fittings
- pumping and valving systems
- control systems

## 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 coordinate and monitor river system usage including:

- identifying water flow, water quality and water quantity requirements
- identifying relevant environmental factors to be considered
- identifying performance measures for the resource and operations
- implementing monitoring and testing programs, including monitoring of assets, water usage and water
- coordinating processes and making system adjustments
- analysing and reporting data and reporting problems

### **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.

***Equipment used*** may include:

- electronic monitoring and metering systems
- manual chart recording systems
- on- and off-road vehicles
- communication equipment
- personal protective equipment

***System adjustments*** may include:

- regulation of flow and pressure, including the adjustment of:
  - pumping systems
  - valving systems
  - control systems

***Organisational and statutory requirements*** may include:

- by-laws and organisational policies
- standard operating procedures
- environment protection
- relevant Australian Standards
- manufacturer's standards and specifications.
- equal employment opportunity
- occupational health and safety
- World Health Organisation and National Health and Medical Research Council (NHMRC) guidelines

## Unit Sector(s)

Not applicable.

## Competency field

Collection and distribution.