



Australian Government

Department of Education, Employment and Workplace Relations

NWP323B Monitor and coordinate catchment operations

Revision Number: 2

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Modification History

NWP323B Release 2: Layout adjusted. No changes to content.

NWP323B Release 1: Primary release.

Unit Descriptor

This unit of competency describes the outcomes required to inspect and monitor catchment areas, monitor flows and coordinate catchment processes. The ability to collect data and samples, monitor and adjust regulatory systems, identify and investigate catchment problems and produce technical reports is essential to performance.

Application of the Unit

This unit supports the attainment of skills and knowledge required for field staff with a specific responsibility for monitoring and coordinating catchment operations. The level of responsibility may vary according to the size and complexity of the catchment area.

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 <i>bold italicised</i> text is used, further information is detailed in 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 Inspect and monitor catchment operations.	1.1 Schedule routine <i>inspections</i> of catchment areas to identify <i>water quality risks</i> according to <i>organisational and statutory requirements</i>. 1.2 Collect, analyse and report <i>catchment data</i> according to organisational requirements. 1.3 Collect and record water samples according to organisational and statutory requirements. 1.4 Monitor and report on activities within the catchment area according to organisational and statutory requirements. 1.5 Correctly select, fit and use required safety equipment, including personal protective equipment.
2 Monitor inflows and outflows.	2.1 Inspect <i>flow regulating systems</i> and determine required adjustments to meet demand. 2.2 Identify and report flows into and conditions of catchment areas according to organisational and statutory requirements.
3 Operate and coordinate catchment processes.	3.1 Identify, address and, if appropriate, report problems within catchment areas according to organisational requirements. 3.2 Monitor and coordinate processes to maintain the parameters of operation. 3.3 Integrate processes to improve source performance according to organisational requirements.
4 Complete documentation.	4.1 Review and action investigation results according to organisational requirements. 4.2 Compile reports from catchment inspections according to organisational requirements.

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
- use pest eradication equipment
- calculate flow and capacity
- coordinate safety surveillance
- interpret plans
- interpret policies and standard operating procedures
- communicate with employees and customers
- use communication equipment
- give and receive instructions
- identify control system faults
- identify water quality risks and prepare protection strategies

Required knowledge:

- inspection of catchments
- coordination processes
- system layout
- system processes
- environmental aspects of catchment areas
- safety procedures
- policies and standard operating procedures
- a general understanding of water and wastewater treatment and the effect of floods on these systems
- Australian Drinking Water Guidelines
- hazardous substances handling
- communication systems
- risk factors and potential hazards involved with catchment area processes, equipment operation, capacity and limitations
- effects of weather and conditions on operation of catchment areas
- pumping and valving systems
- control systems
- pest control specifications

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 inspect and monitor catchment areas, monitor flows and coordinate catchment processes including:

- inspecting catchment areas and identifying water quality risks
- monitoring catchment and collecting and reporting catchment data
- collecting samples
- inspecting and adjusting flow regulating systems
- identifying and reporting on flows into the catchment area
- assessing and reporting on the condition of the catchment area
- identifying and addressing risks and hazards
- monitoring and integrating catchments processes
- completing documentations
- implementing actions resulting from investigations

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 only taken at the point 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.

Inspections may require:

- interaction and communication with other employees, other authorities and the general public
- visual observation
- implementation of reporting procedures including:
 - procedures for the implementation of by-laws
 - organisational policies
 - standard operating procedures
 - statutory requirements

Water quality risks may include:

- herbicide run-off
- dead and decaying wildlife and stock animals
- animal and bird faeces
- corrosion of plant and equipment

Organisational and statutory requirements may include:

- by-laws and organisational policies
- standard operating procedures
- environment protection
- occupational health and safety, including use of personal protective equipment
- dangerous goods and hazardous substances
- road signage
- electrical
- dangerous goods
- World Health Organisation standards
- Australian Drinking Water Guidelines
- Australian National Committee on Large Dams guidelines

Catchment data may include:

- aerial photographs
- satellite photographs
- catchment officer/ranger reports

Flow regulating systems may include:

- pumping systems
- valving systems
- control systems
- emergency overflow and diversion systems

Unit Sector(s)

Not applicable.

Competency field

Collection and distribution.