



**Australian Government**

# **NWPCAD018 Monitor and operate bulkwater transfer systems**

**Release: 1**

# NWPCAD018 Monitor and operate bulkwater transfer systems

## Modification History

Release 1. This is the first release of this unit of competency in the NWP National Water Training Package.

## Application

This unit involves the skills and knowledge required to monitor and operate bulkwater transfer systems.

It includes preparing for work, monitoring system performance and usage and regulating flow. It also includes conducting routine maintenance, identifying the causes of fluctuating demand and collecting data.

This unit applies to those working as staff with specific responsibility for ensuring that the operation of bulk water transfer systems complies with legislative and organisational requirements. Those undertaking this unit would work under appropriate supervision, while performing routine tasks in a familiar context, ensuring minimum damage to the environment.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

## Pre-requisite Unit

Not applicable.

## Competency Field

Catchment and Dams

## Unit Sector

Not applicable.

## Elements and Performance Criteria

### ELEMENTS

Elements describe the essential outcomes.

#### 1 Prepare work

### PERFORMANCE CRITERIA

Performance criteria describe the performance needed to demonstrate achievement of the element.

#### 1.1 Determine work requirements from job specifications and plans

- |          |                                             |                                                                                                               |
|----------|---------------------------------------------|---------------------------------------------------------------------------------------------------------------|
|          | <b>1.2</b>                                  | Perform site check to prevent damage to other utilities and the environment according to workplace procedures |
|          | <b>1.3</b>                                  | Select and check equipment to meet safety requirements of task and worksite                                   |
|          | <b>1.4</b>                                  | Select, fit and use personal protective equipment according to workplace procedures                           |
|          | <b>1.5</b>                                  | Identify hazards with operating bulk water systems and determine control measures                             |
| <b>2</b> | <b>Monitor system performance and usage</b> |                                                                                                               |
|          | <b>2.1</b>                                  | Conduct routine monitoring programs according to workplace maintenance schedules                              |
|          | <b>2.2</b>                                  | Identify faults causing fluctuations in demand and system changes causing dirty water                         |
|          | <b>2.3</b>                                  | Collect, analyse and record data on system performance and usage                                              |
|          | <b>2.4</b>                                  | Collect process samples and conduct standard tests according to workplace procedures                          |
| <b>3</b> | <b>Regulate flow</b>                        |                                                                                                               |
|          | <b>3.1</b>                                  | Monitor and adjust flow regulating systems to meet demand requirements                                        |
|          | <b>3.2</b>                                  | Regulate and divert flows to facilitate repair or emergency activities                                        |

## Foundation Skills

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

## Range of Conditions

Range is restricted to essential operating conditions and any other variables essential to the work environment.

Non-essential conditions may be found in the Companion Volume Implementation Guide.

## Unit Mapping Information

This unit replaces and is equivalent to NWPNET043 Monitor and operate bulkwater transfer systems.

## Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=26336bc0-04e5-49d9-8c31-46c49b6a0037>

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# Assessment Requirements for NWPCAD018 Monitor and operate bulkwater transfer systems

## Modification History

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## Performance Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all the requirements of the elements and performance criteria on at least one occasion and includes:

- applying workplace procedures and industry standards
- collecting and recording data
- identifying and responding to operational problems
- identifying hazards and determining control measures
- identifying system faults
- monitoring and operating bulkwater transfer systems
- operating bulkwater systems
- planning and preparing for work
- producing reports
- regulating water flow
- regulating water pressure
- using safety and personal protective equipment

## Knowledge Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all the requirements of the elements and performance criteria and includes knowledge of:

- bulkwater transfer system layout
- control systems
- effects of weather and conditions on systems, site or plant
- environmental aspects of operation
- equipment operation, capacity and limitations
- forces including gravitational, valve operation, hydraulic and pumps
- illegal connections
- lock-out procedures for mechanical and electrical installations
- methods for collecting data
- relevant legislation, regulations and workplace procedures
- relevant utilities and service bodies
- risk factors and potential hazards of operating water transfer systems

- system hydraulics

## Assessment Conditions

Assessors must hold credentials specified within the Standards for Registered Training Organisations current at the time of assessment.

Assessment must satisfy the Principles of Assessment and Rules of Evidence and all regulatory requirements included within the Standards for Registered Training Organisations current at the time of assessment.

Assessment must occur in workplace operational situations where it is appropriate to do so; where this is not appropriate, assessment must occur in simulated workplace operational situations that replicate workplace conditions.

Assessment processes and techniques must be appropriate to the language, literacy and numeracy requirements of the work being performed and the needs of the candidate.

Resources for assessment must include access to:

- relevant and appropriate materials, tools, equipment and personal protective equipment currently used in industry
- applicable documentation including legislation, regulations, codes of practice, workplace procedures and operation manuals.

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